User Manual

3-AXIS VANDAL DOME IP CAMERA

WARINGS

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.

CAUTION

<table>
<tr><td> </td><td>CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN</td><td> </td></tr>
<tr><td colspan="3">CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK.
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</td></tr>
</table>

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I. Preface

This IP Camera is a 3-Axis IP Vandal Dome camera. It has the web server built in. User can view real-time video via IE browser. This camera supports simultaneously H.264, Motion JPEG & MPEG4 video compressions and dual-streaming which provide smooth and high-quality video. The video can be stored in the SD card and playback remotely. With the user friendly interface, it is an easy-to-use IP camera which is designed for security applications.

II Product Specifications

Main Features:

- Full HD 1080P@30fps real time
- 1/2.7” 2Megapixel CMOS Sensor
- Digital Noise Reduction
- Digital Wide Dynamic Range (D-WDR)
- Shutter Speed adjust
- Sense Up adjust
- Day & Night Switch time control manually
- IR-Cut filter
- IR Distance 15M
- Vandal proof
- Power over Ethernet available
- H.264/ M-JPEG / MPEG4 compression
- Micro SD card backup
- Support iPhone/iPad/Android/Mac
- Triple Streaming
- SDK for Software Integration
- Free Bundle 36ch recording software (IP Camera Recorder)

YUC-Hi26RP Specifications

Hardware	
CPU	ARM 9 ,32 bit RISC
RAM	256MB
Flash	16MB
Image sensor	1/2.7” 2Megapixel CMOS sensor
Lens Type	Vari-focal Lens 3-9mm@F1.8

Sensitivity	Color : 0.1 Lux (AGC ON) B / W: 0.05 Lux (AGC ON)
Support DC IRIS	Yes
Shutter Time	1 / 5 ~ 1 / 10,000 sec
ICR	Mechanism IR cut Filter
LED	Built-in 18 units IR LED IR Distance-15M
I/O	1 DI / 1 DO
Audio	G.711(64K) and G.726(32K,24K) audio compression Input: External mic in Output: External Audio out
Power over Ethernet	Yes
Operating Temperature	-10°C ~ 45°C
Dimensions	126mm (W) x 126mm (H) x 100mm (D)
Weight	1300g
Network	
Ethernet	10/ 100 Base-T
Network Protocol	HTTP, HTTPS, SNMP, QoS/DSCP, Access list, IEEE 802.1X, RTSP, TCP/ IP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP, SAMBA, Bonjour
System	
Video Resolution	1920x1080@30fps, 1280x720@30fps, ,640x480@30fps, 320x240@30fps, 176x144@30fps
Video Adjust	Brightness, Contrast, Hue, Saturation, Sharpness, Shutter Speed adjust, AGC, Sense-Up, D-WDR, Flip, Mirror, Noise reduction, Exposure, Day & Night adjust
Triple Streaming	Yes
Image snapshot	Yes
Full screen monitoring	Yes
Privacy Mask	Yes, 3 different areas
Compression format	H.264/ M-JPEG/ MPEG4
Video bitrates adjust	CBR, VBR
Motion Detection	Yes, 3 different areas
Triggered action	Mail, FTP, Save to SD card, Relay out, SAMBA
Pre/ Post alarm	Yes, configurable

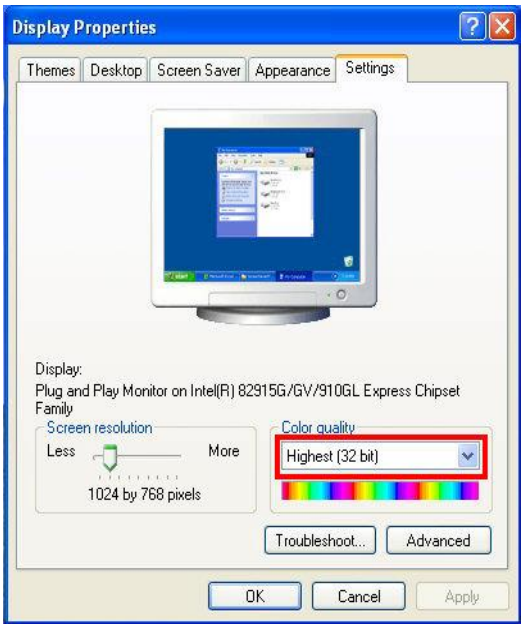
Security		Password protection, IP address filtering, HTTPS encrypted data transmission, 802.1X port-based authentication for network protection, QoS/DSCP
Firmware upgrade		HTTP mode, can be upgraded remotely
Simultaneous connection		Up to 10
SD card management		
Recording trigger		Motion Detection, IP check, Network break down (wire only), Schedule, Alarm in
Video format		AVI, JPEG
Video playback		Yes
Delete files		Yes
Client System requirement		
OS		Windows 7, 2000, XP, 2003, Microsoft IE 6.0 or above, Chrome, Safari, Firefox
Mobile Support		iOS 4.3 or above, Android 1.6 or above.
Hardware	Suggested	Intel Dual Core 2.53G,RAM: 1024MB, Graphic card: 128MB
	Minimum	Intel-C 2.8G, RAM: 512MB, Graphic card: 64MB

III. Product Installation

A. Monitor Setting

1. Right-Click on the desktop. Select “Properties”

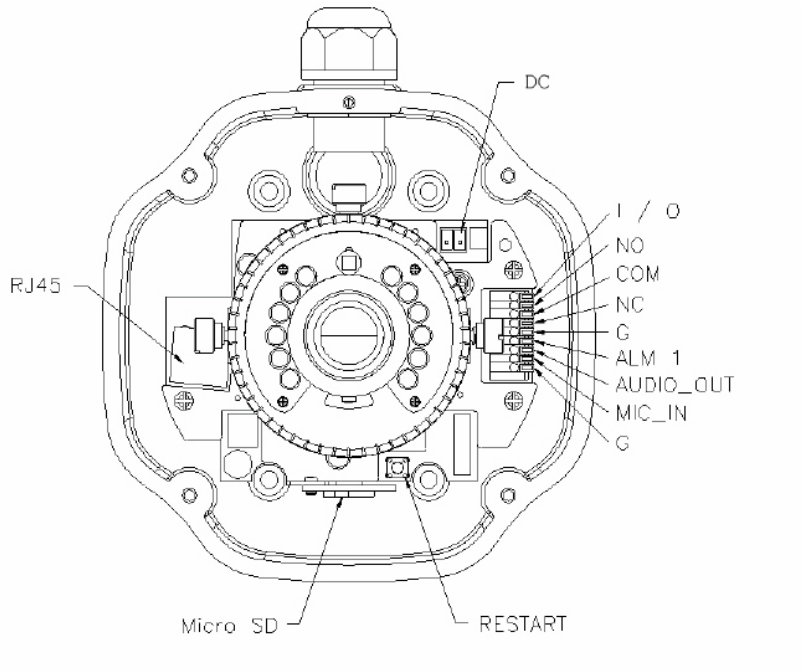
2. Change color quality to highest (32bit).



B. Hardware Installation

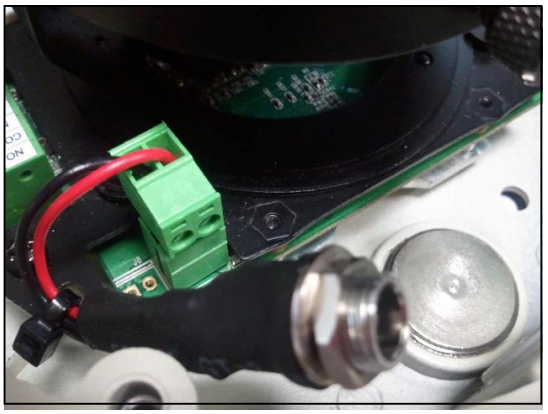
1. Connector Instruction

Remove the dome cover, and you will see the structure as below.



Connect power adaptor, then connect the IP camera to PC or network. Set up the network configurations according to the network environment. About I/ O setting, please refer to chapter VII in User Manual: "I/O Configuration" for detail.

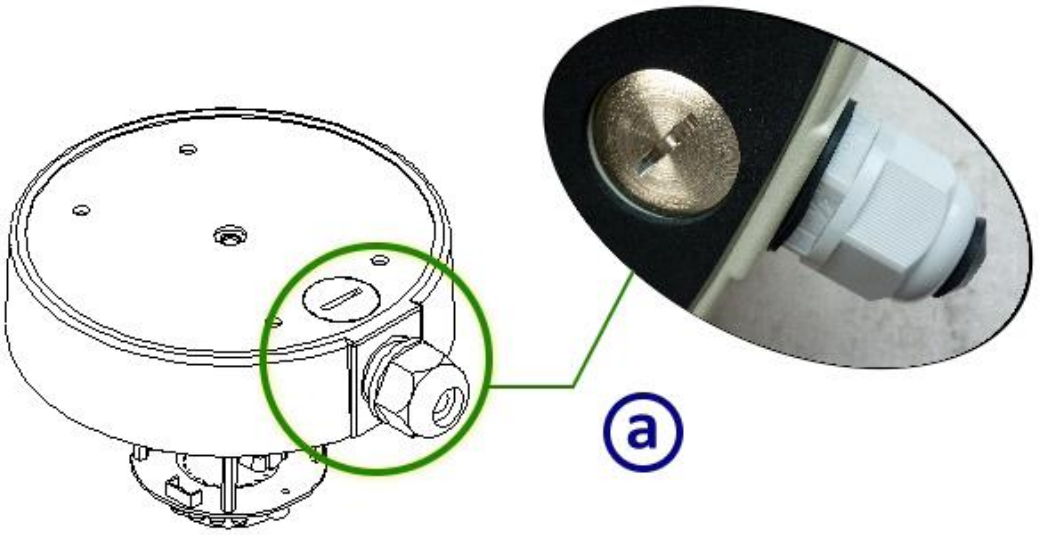
The following picture shows a DC 12V connector for adapter jack plug



2. Vandal Dome Installation Tips

In order to ensure IP66 waterproof level, please install the vandal dome according to the instruction.

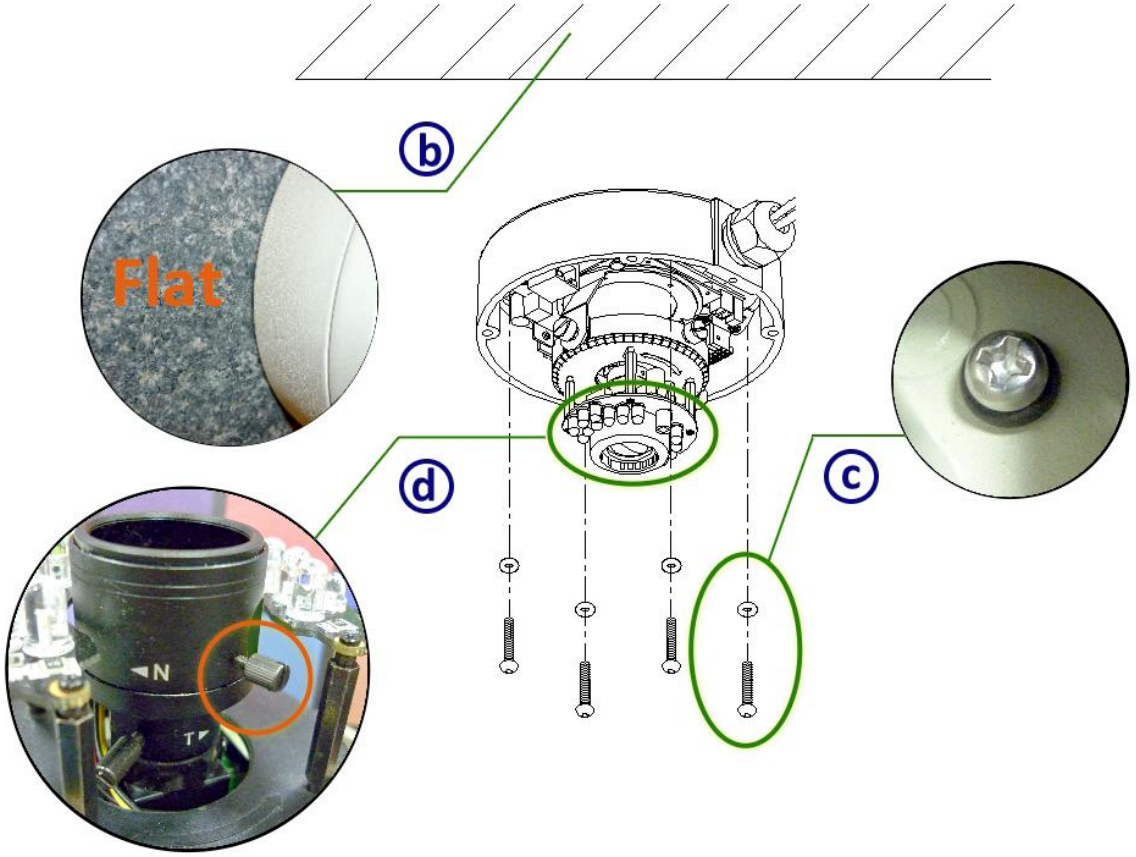
a. The Unused cable outlet hole must be closed, and the waterproof connector on the used hole must be locked closely.



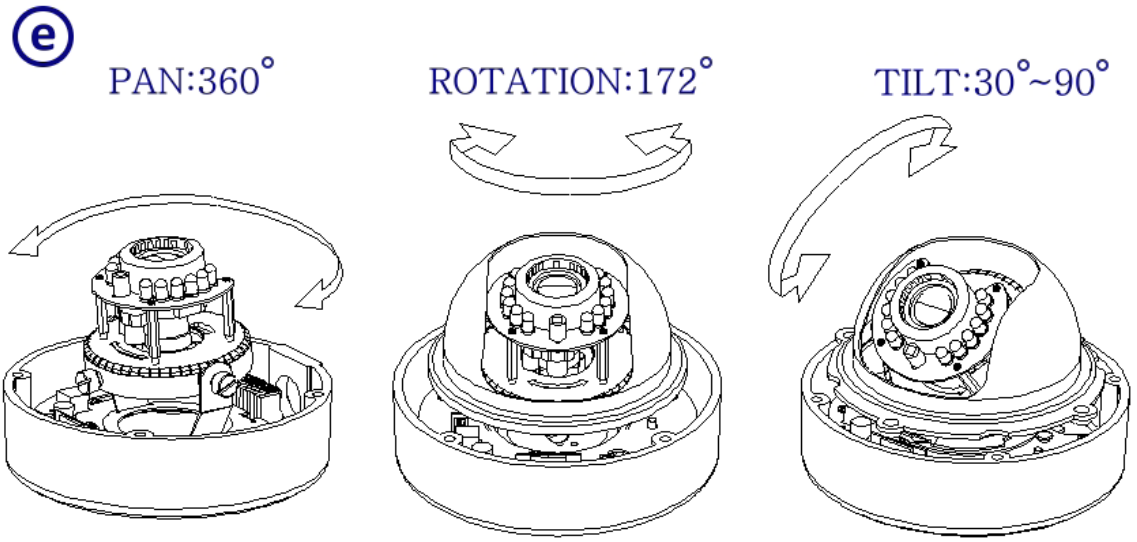
b. We recommend the bottom of housing be set on the smooth flat and closely seal with the surface.

c. When you mount the camera housing on the ceiling or wall, please use the screws with the black rubber o-rings. Without the o-ring, the water may seep into the machine.

d. Turn and loose the control stick, shift right and left to adjust the vari-focal lens until the image becomes clear, then turn and tighten the stick to fix it

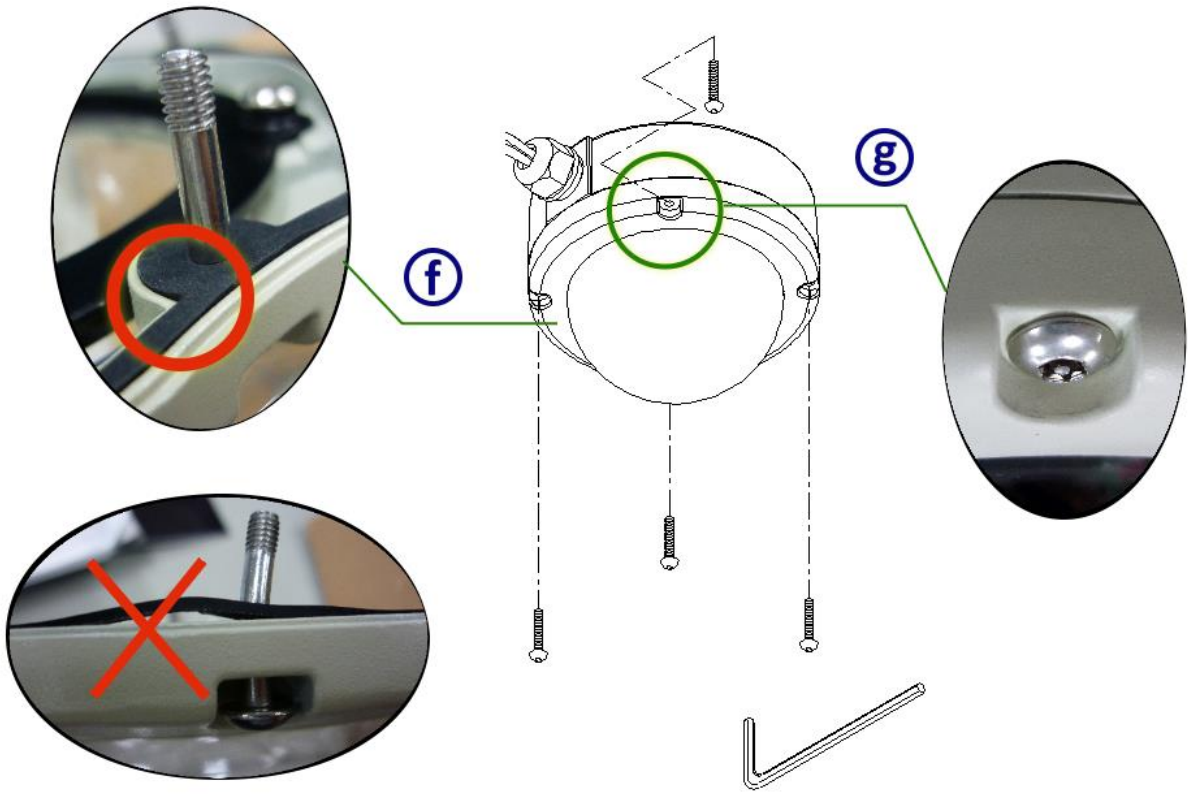


e. Use the 3-Axis bracket to adjust the camera to appropriate angle



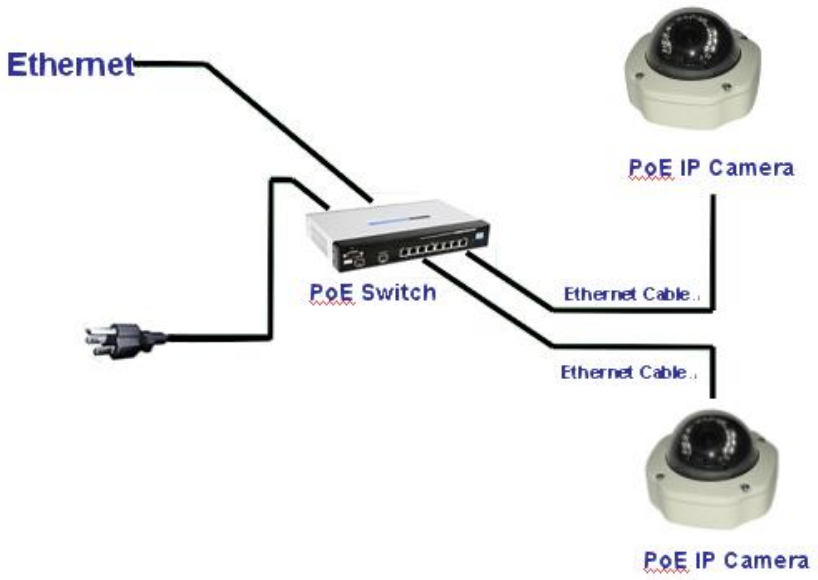
f. Before you close the dome cover, make sure that the black rubber band sticks to the inside of the cover completely. Crook or uneven rubber band may cause the waterproof defective.

g. Lock tightly the screws on the dome cover to ensure there's no gap between the lid and base.



3. PoE (Power-Over-Ethernet) 802.3at, 30.0W PoE Switch is recommended

Power-over-Ethernet (PoE) is a technology that integrates power into a standard LAN infrastructure. It enables power to be provided to the network device, such as an IP phone or a network camera, using the same cable as that used for network connection. It eliminates the need for power outlets at the camera locations and enables easier application of uninterruptible power supplies (UPS) to ensure 24 hours a day, 7 days a week operation.

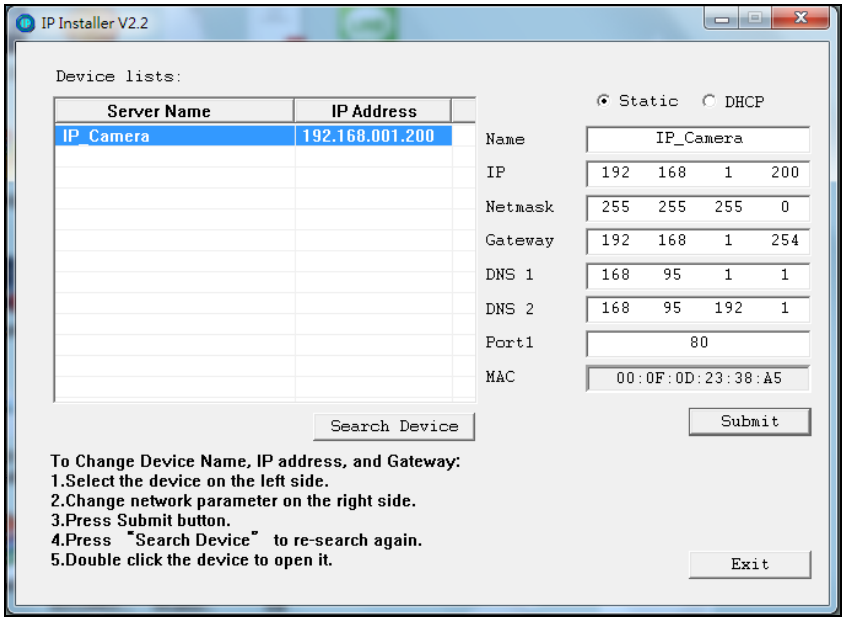


C. IP Assignment

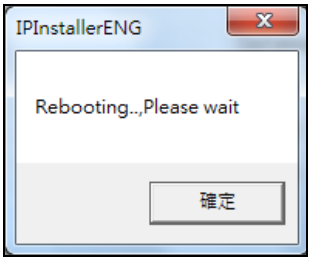
1. Use the software, “IP Installer” to assign the IP address of IP Camera. The software is in the attached CD.
2. There are two languages for the IP installer
   a. IPInstallerCht.exe: Chinese version
   b. IPInstallerEng.exe: English version
3. There are 3 kinds of IP configuration.
   a. Fixed IP (Public IP or Virtual IP)
   b. DHCP (Dynamic IP)
   c. Dial-up (PPPoE)
4. Execute IP Installer
5. For Windows XP SP2 user, it may popup the following message box. Please click “Unblock”.

Windows Security Alert
To help protect your computer, Windows Firewall has blocked some features of this program.
Do you want to keep blocking this program?
Name: IPInstaller V2.1 Network Device Scan
Publisher: Unknown
Keep Blocking
Unblock
Ask Me Later
Windows Firewall has blocked this program from accepting connections from the Internet or a network. If you recognize the program or trust the publisher, you can unblock it. When should I unblock a program?

6. IP Installer configuration:



7. IP Installer will search all IP Cameras connected on LAN. The user can click the icon, Search Device, to search again.
8. Click one of the IP Camera listed on the left side. The network configuration of this IP camera will show on the right side. You may change the “name” of the IP Camera to your preference (ex: Office, warehouse). Change the parameter and click “Submit” then click “OK”. It will apply the change and reboot the Device.



9. Please make sure the subnet of PC IP address and IP CAM IP address are the same.

The same Subnet:

IP CAM IP address: 192.168.1.200

PC IP address: 192.168.1.100

Different Subnets:

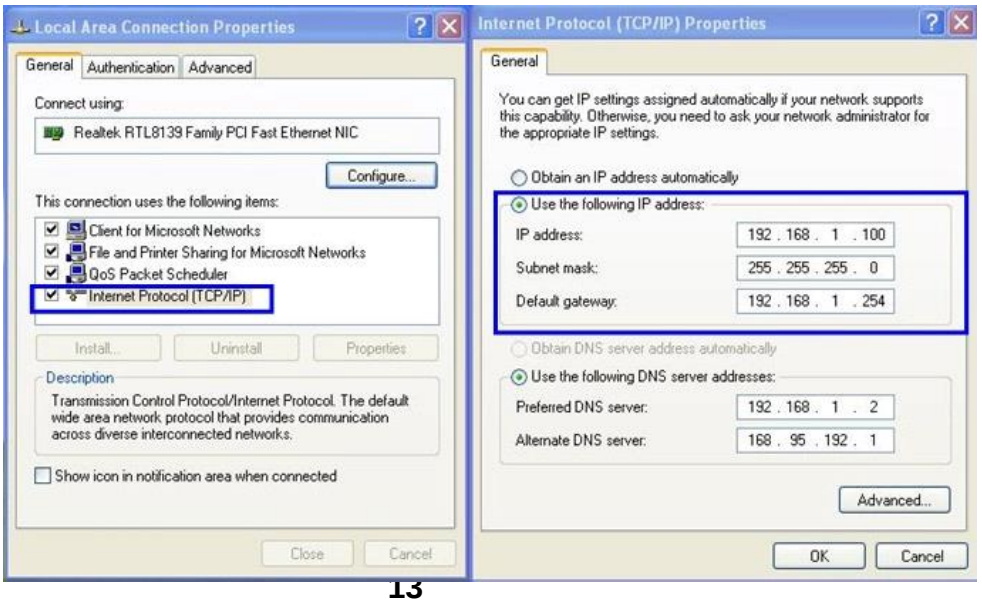
IP CAM IP address: 192.168.2.200

PC IP address: 192.168.1.100

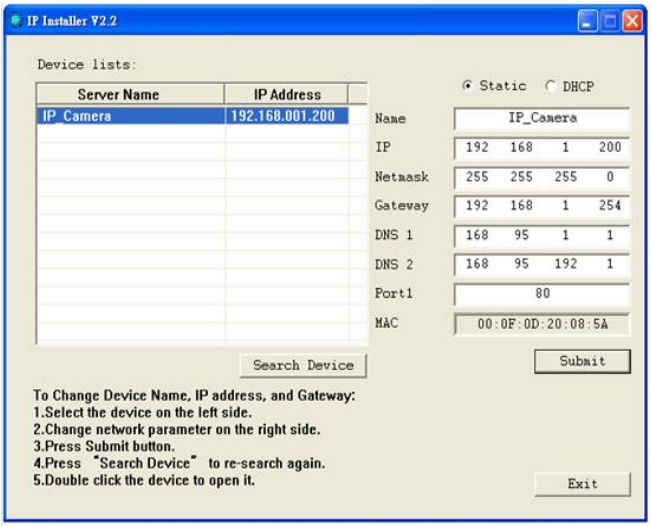
To Change PC IP address:

Control Panel → Network Connections→ Local Area Connection Properties→ Internet Protocol (TCP/IP) → Properties

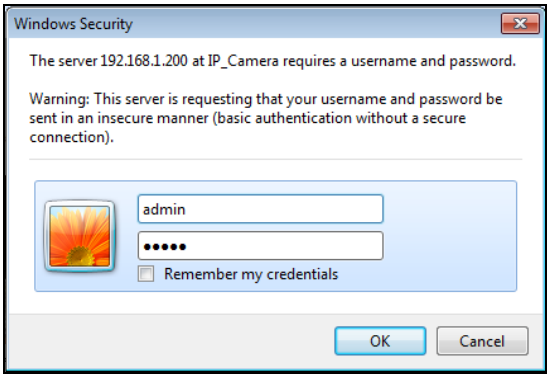
Please make sure your IP Camera and PC have the same Subnet. If not, please change IP Camera subnet or PC IP subnet accordingly.


Local Area Connection Properties
General
Authentication
Advanced
Connect using:
Realtek RTL8139 Family PCI Fast Ethernet NIC
Configure...
This connection uses the following items:
Client for Microsoft Networks
File and Printer Sharing for Microsoft Networks
QoS Packet Scheduler
Internet Protocol (TCP/IP)
Install...
Uninstall
Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Show icon in notification area when connected
Close
Cancel
Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 1 . 100
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 192 . 168 . 1 . 254
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server: 192 . 168 . 1 . 2
Alternate DNS server: 168 . 95 . 192 . 1
Advanced...
OK
Cancel

10. A quick way to access remote monitoring is to left-click the mouse twice on a selected IP Camera listed on “Device list” of IP Installer. An IE browser will be opened.



11. Then, please key in the default “user name: admin” and “password: admin”.


Windows Security
The server 192.168.1.200 at IP_Camera requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
admin
Remember my credentials
OK
Cancel

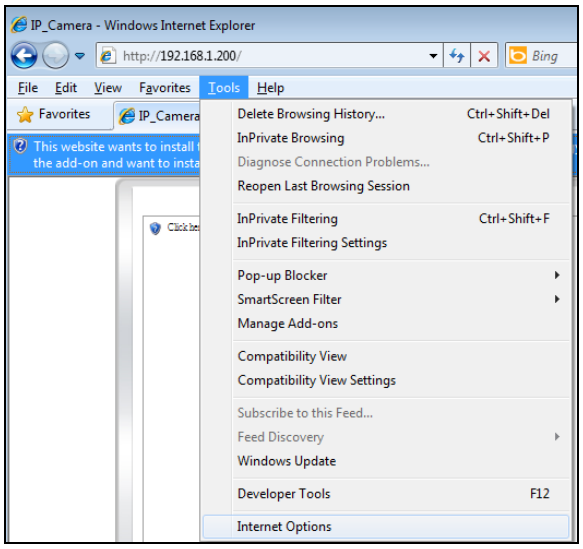
D. Install ActiveX control

For the first time to view the camera video via IE, it will ask you to install the ActiveX component.

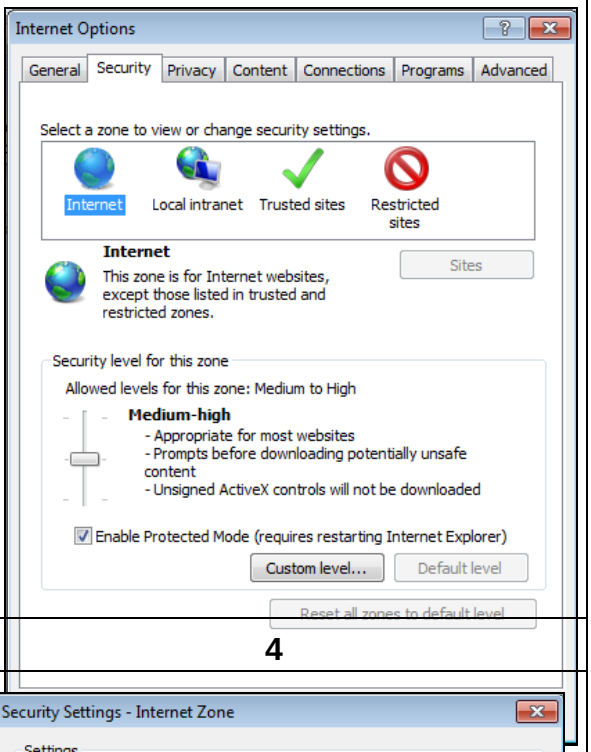
If the installation failed, please check the security setting for the IE browser.

1. IE→ Tools → Internet Options… → Security Tab → Custom Level… → Security Settings → Download unsigned ActiveX controls→ Select “Enable” or Prompt.
2. IE → Tools → Internet Options… → Security Tab → Custom Level… →Initialize and script ActiveX controls not marked as safe → “Enable” or Prompt.

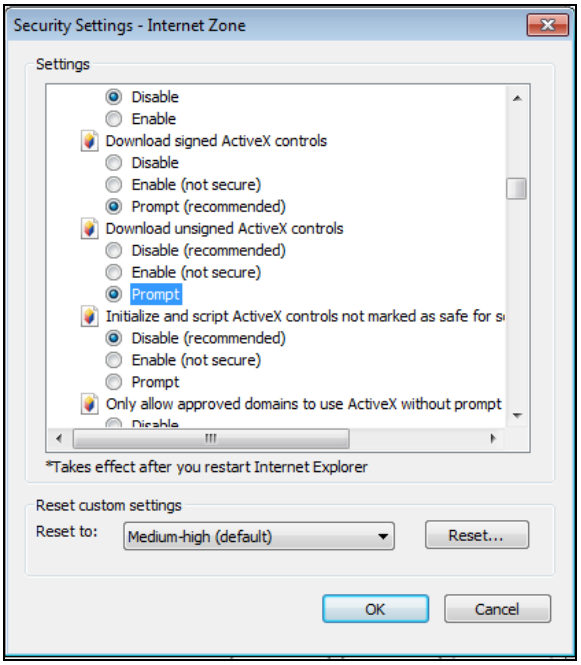
1



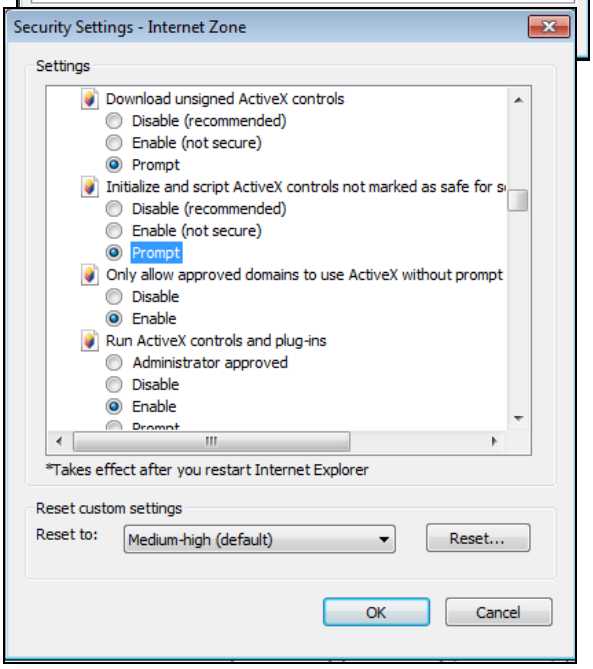
2


Internet Options
General Security Privacy Content Connections Programs Advanced
Select a zone to view or change security settings.
Internet
Local intranet
Trusted sites
Restricted sites
Internet
This zone is for Internet websites, except those listed in trusted and restricted zones.
Sites
Security level for this zone
Allowed levels for this zone: Medium to High
Medium-high
- Appropriate for most websites
- Prompts before downloading potentially unsafe content
- Unsigned ActiveX controls will not be downloaded
Enable Protected Mode (requires restarting Internet Explorer)
Custom level...
Default level
Reset all zones to default level

3

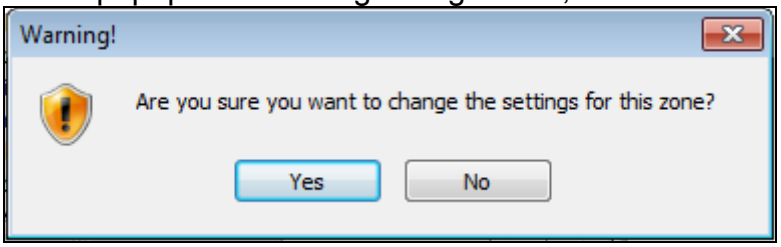


4



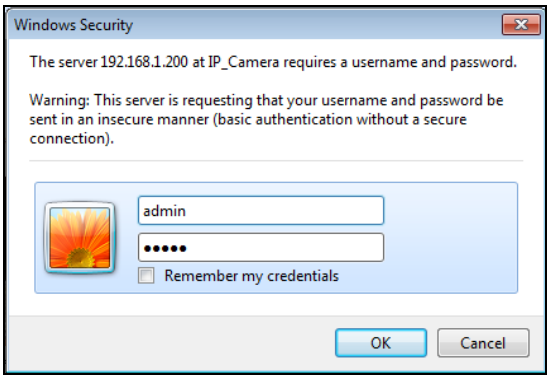
5

When popup the following dialogue box, click “Yes”.

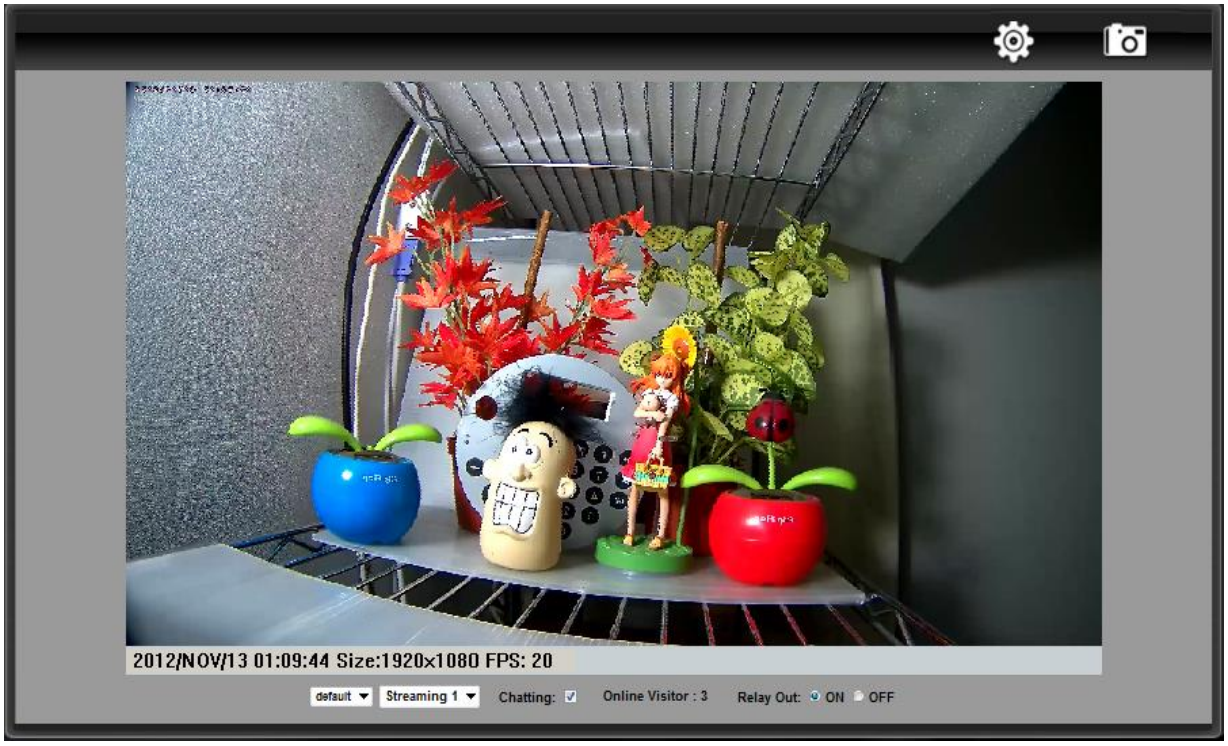


IV. Live Video

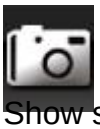
Start an IE browser, type the IP address of the IP camera in the address field. It will show the following dialogue box. Key-in the user name and password. The default user name and password are “admin” and “admin”.


Windows Security
The server 192.168.1.200 at IP_Camera requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
admin
Remember my credentials
OK
Cancel

When the IP Camera is connected successfully, it shows the following program interface.

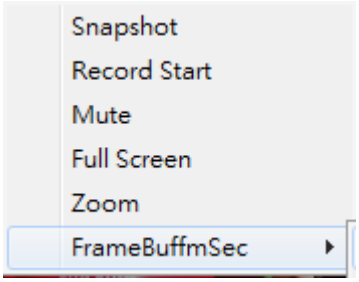


1. Get into the administration page

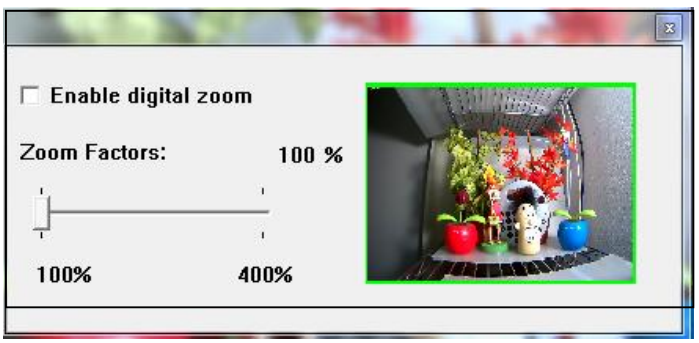
2.  : Video Snapshot
3. Show system time, video resolution, and video refreshing rate
4. Adjust image, Default, 1/2x, 1x, 2x
5. Select video streaming source (”Video Setting”, If the streaming 2 setting is closed, this option will not appear here.)
6. IP Camera supports 2-way audio. Click the “Chatting” check box. Then you can use microphone connected to the PC to talk to server side, which is IP Camera side.
7. Show how many people connect to this IP camera.
8. Tick the Relay out "ON" box to enable the relay output.

Double-click the video to switch to full screen view. Press “Esc” or double-click the video again back to normal mode.

Right-Click the mouse on the video, it will show a pop-up menu.



1. Snapshot: Save a JPEG picture
2. Record Start: Record the video in the local PC. It will ask you where to save the video. To stop recording, right-click the mouse again, select “Record Stop”. The video format is AVI. Use Microsoft Media Player to play the recorded file.
3. Mute: Turn of the audio. Click again to turn on it.
4. Full Screen: Full-screen mode.
5. ZOOM: Enable zoom-in and zoom-out functions. Select “Enable digital zoom” option first within the pop-up dialogue box and then drag and drop the bar to adjust the zoom factors.



V IP Camera Configuration

Click to get into the administration page as below.

Click to back to the live video

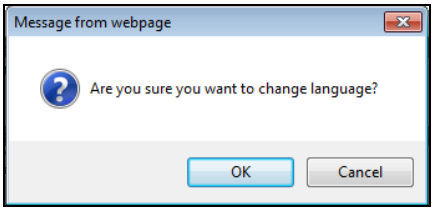
A. System

1. System Information

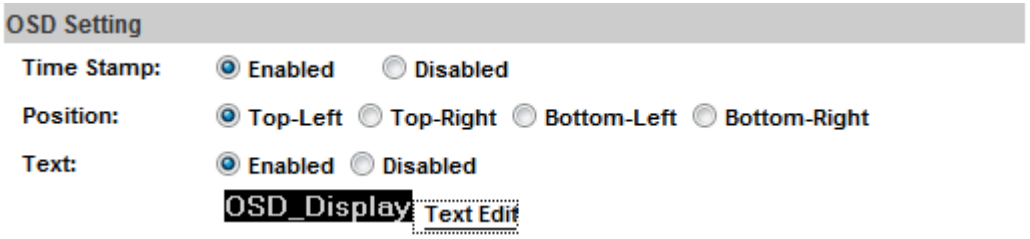
a. Server Information: Set up the camera name, select language, and set up the camera time.

(i) Server Name: This is the Camera name. This name will show on the IP Installer.

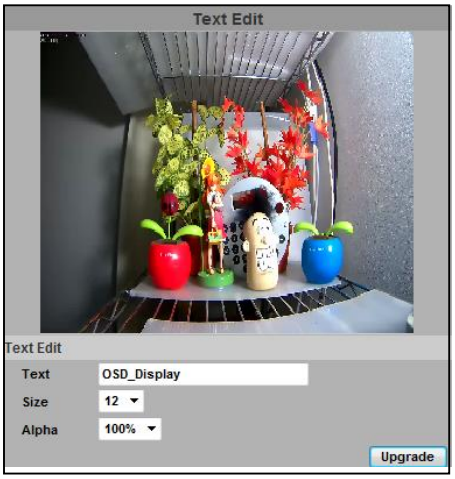
(ii) Select language: There are English, Traditional Chinese, and Simplified Chinese for selection. When switching, it will show the following dialogue box for the confirmation of changing language.



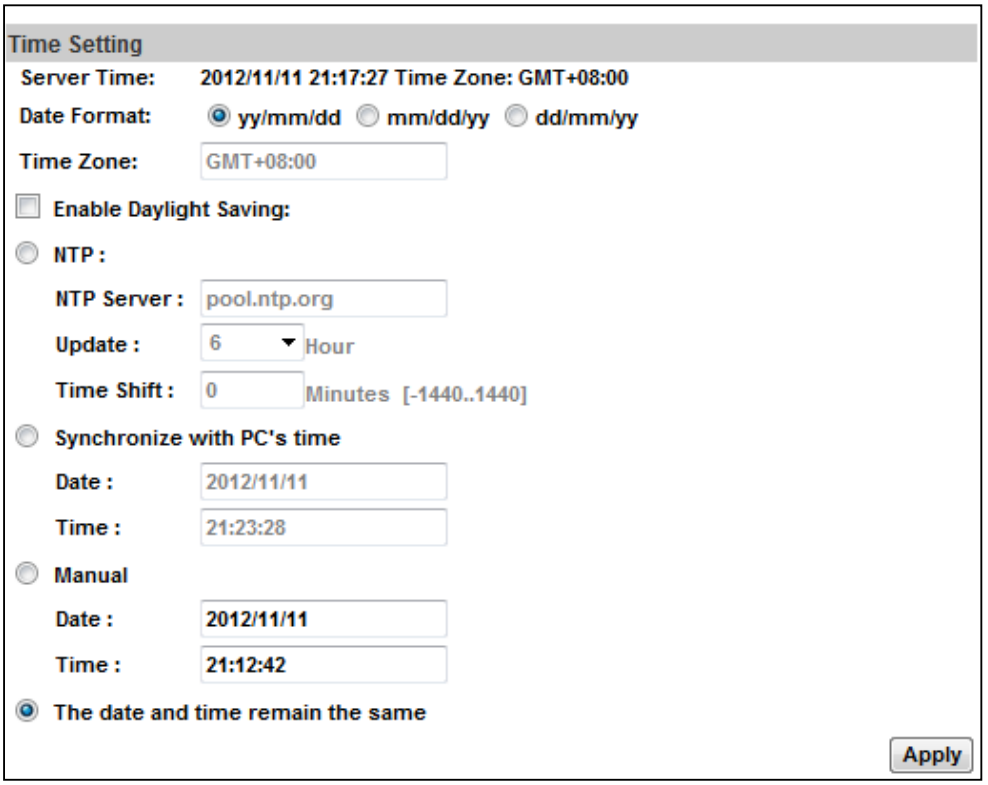
b. OSD Setting: Select a position where date & time stamp / text showing on screen.



Moreover, click Text Edit can entry to adjust the OSD contents which is Alpha of text. Finally, click Upgrade button to reserve the setting.

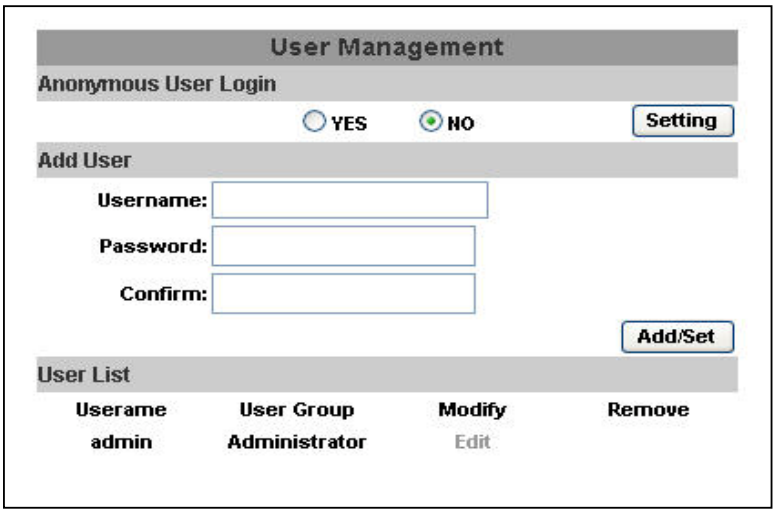


c. Server time setting: Select options to set up time - “NTP”, “Synchronize with PC’s time”, “Manual”, “The date and time remain the same”.



2. User Management

IP CAMERA supports three different users, administrator, general user, and anonymous user.



a. Anonymous User Login:

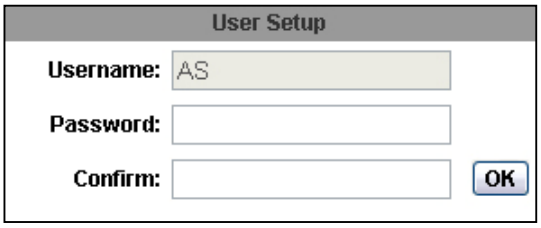
Yes: Allow anonymous login

No: Need user name & password to access this IP camera

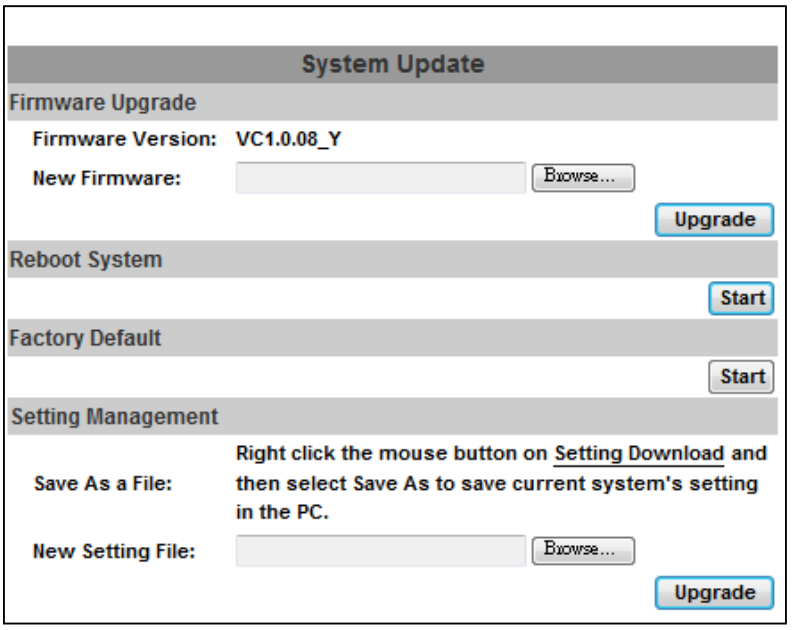
b. Add user:

Type the user name and password, then click “Add/Set”.

c. Click “edit” or “delete” in the user list to modify them. The system will ask you to key in the password in the pop-up window before you edit the user information.



3. System update:



a. To update the firmware online, click “Browse…” to select the firmware. Then click “Upgrade” to proceed.

b. Reboot system: re-start the IP camera

c. Factory default: delete all the settings in this IP camera.

d. Setting Management: User may download the current setting to PC, or upgrade from previous saved setting.

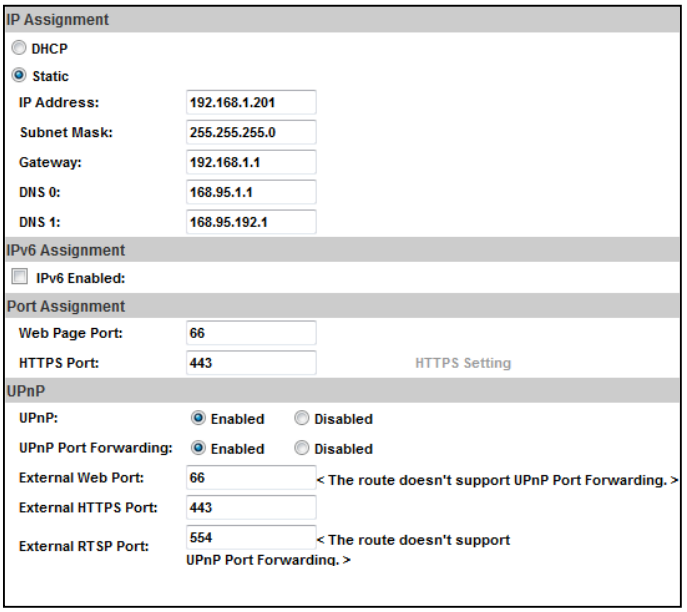
(i) Setting download:
Right-click the mouse button on Setting Download → Select “Save AS…” to save current IP CAM setting in PC → Select saving directory → Save

(ii) Upgrade from previous setting:
Browse → search previous setting → open → upgrade → Setting update confirm → click index.html. to return to main page

B. Network

1. IP Setting

IP Camera supports DHCP and static IP.

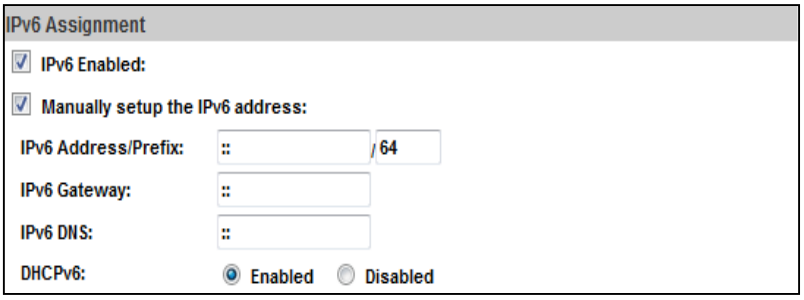


a. IP Assignment

(i) DHCP: Using DHCP, IP CAMERA will get all the network parameters automatically.

(ii) Static IP: Please type in IP address, subnet mask, gateway, and DNS manually.

b. IPv6 Assignment: IPv6 is a newer numbering system that provides a much larger address pool than IPv4, which accounts for most of today's Internet traffic. You can set up IPv6 manually by key in Address, Gateway, and DNS, or enable DHCP to assign the IP automatically.



c. Port assignment:

(i) Web Page Port: setup web page connecting port and video transmitting port (Default: 80)

(ii) HTTP Port: setup HTTPS connecting port (Default: 443)

d. UPnP (Universal Plug and play):

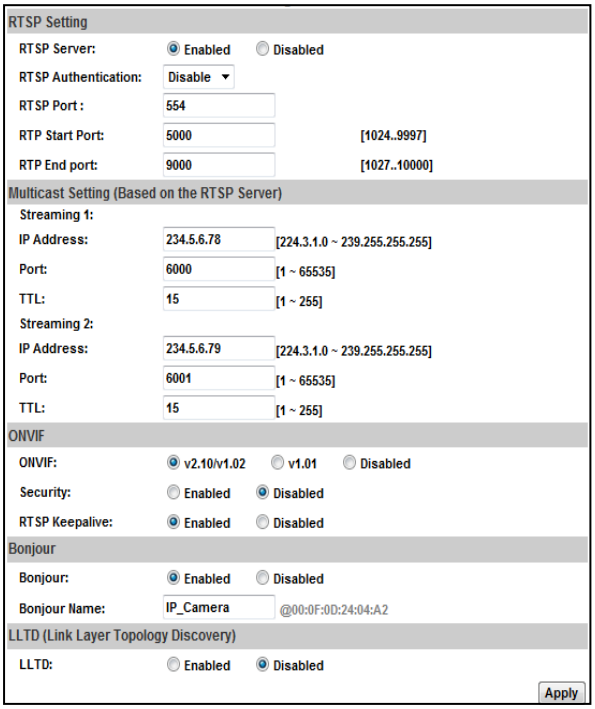
This IP camera supports UPnP, If this service is enabled on your computer, the camera will automatically be detected and a new icon will be added to “My Network Places.”

(i) UPnP Port Forwarding:

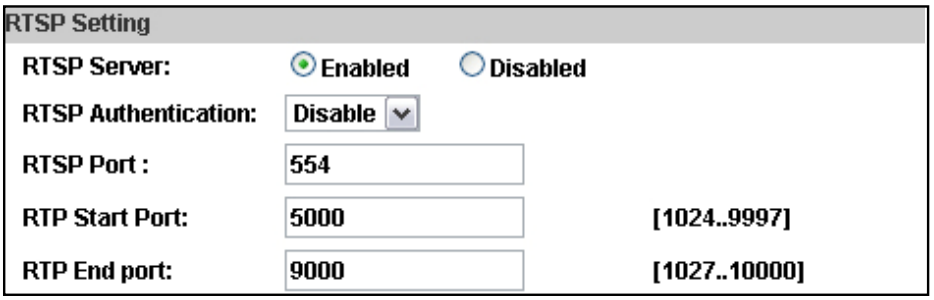
Enable UPnP Port Forwarding can access the Network Camera from the internet. Selecting this option is to allow the Network Camera to open ports on the router automatically so that video streams can be sent out from a LAN. There are three External port can be set, Web Port, Http Port and RTSP port. To utilize of this feature, make sure that your router supports UPnP TM and it is activated.

(ii) Note: UPnP must be enabled on your computer. Please follow the procedures to activate UPnP.

- open the Control Panel from the Start Menu
- Select Add/Remove Programs
- Select Add/Remove Windows Components and open Networking Services section
- Click Details and select UPnP to setup the service
- The IP device icon will be added to “MY Network Places”
- User may double click the IP device icon to access IE browser



e. RTSP setting



If you have a media player that supports RTSP protocol, you can use it to receive the video streaming from IP camera. The RTSP address can be set for two streaming respectively. Please jump to Chapter V-C:"Video Setting". There're setting field for RTSP address of two streamings.

(i) RTSP Server: enable or disable

(ii) RTSP Authentication:

"Disable" means everyone who knows your camera IP Address can link to your camera via RTSP. No username and password are required.

Under "Basic" and "Digest" authentication mode, the camera asks the user to give username and password before allows accessing. The password is transmitted as clear text under basic mode, which provides a lower level of security than under digest mode.

Make sure your media player supports the authenticaton schemes.

(iii) RTSP Port: setup port for RTSP transmitting (Default: 554)

(iv) RTSP Start and End Port: in RTSP mode, you may use TCP and UDP for connecting. TCP connection uses RTSP Port (554). UDP connection uses RTSP Start and End Port.

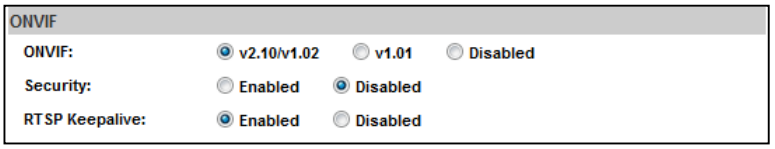
f. Multicast Setting (Based on the RTSP Server)

Multicast is a bandwidth conservation technology. This function allows several user to share the same packet sent from IP camera. To use Multicast, appoint IP Address and port here. TTL means the life time of packet, the larger the value is, the more users can receive the packet.

To use Multicast, be sure to enable the function "Receive Multicast" in your media player.

g. ONVIF

Choose your ONVIF version and settings.



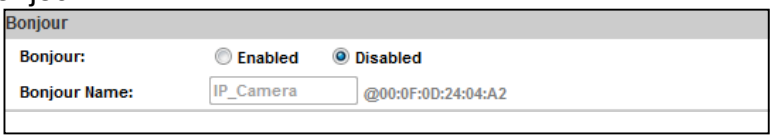
(i) Choose your ONVIF version and settings.

Under ONVIF connection, the video will be transmitted by RTSP. Be sure to enable the RTSP server in IP setting, or you're not able to receive the video via ONVIF.

(ii) RTSP Keepalive:

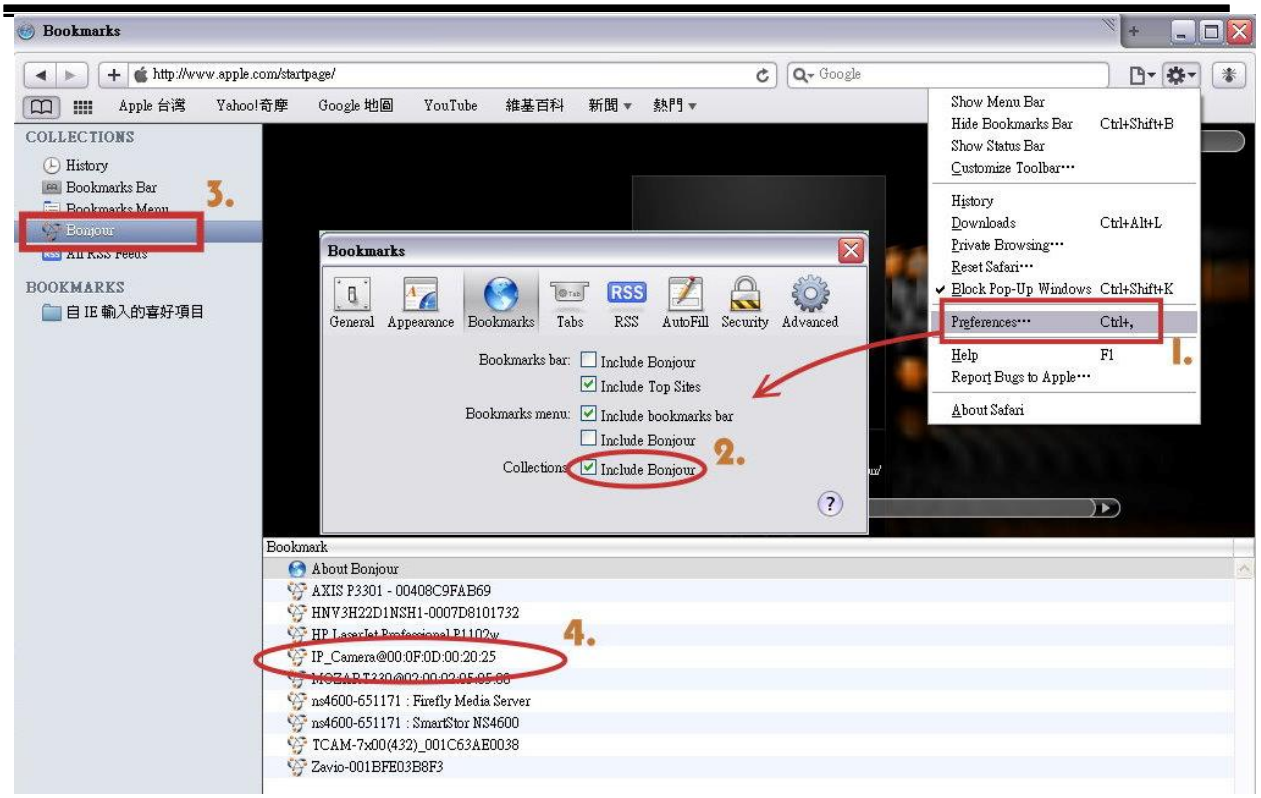
When the function is enabled, the camera checks once in a while if the user who links to the camera via ONVIF still keeps connecting. If the connection is broken, the camera stops transmitting video to user.

h. Bonjour

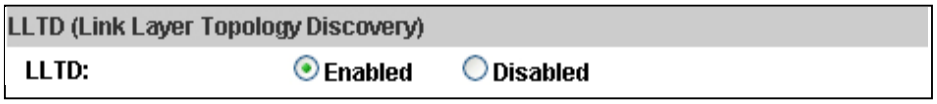


This function enables MAC systems to link to this IP camera. Key in the name here.

The web browser "Safari" also has Bonjour function. Tick "Include Bonjour" in the bookmark setting, and you can see the IP camera appearing under the bonjour category. Click the icon to connect the IP camera.


Bookmarks
http://www.apple.com/startpage/
Google
Apple 台灣
Yahoo!奇摩
Google 地圖
YouTube
維基百科
新聞
熱門
COLLECTIONS
History
Bookmarks Bar
Bookmarks Menu
Bonjour
All RSS Feeds
BOOKMARKS
自 IE 輸入的喜好項目
3.
Show Menu Bar
Hide Bookmarks Bar Ctrl+Shift+B
Show Status Bar
Customize Toolbar…
History
Downloads Ctrl+Alt+L
Private Browsing…
Reset Safari…
Block Pop-Up Windows Ctrl+Shift+K
Preferences… Ctrl+,
Help F1
Report Bugs to Apple…
About Safari
1.
Bookmarks
General
Appearance
Bookmarks
Tabs
RSS
AutoFill
Security
Advanced
Bookmarks bar:
Include Bonjour
Include Top Sites
Bookmarks menu:
Include bookmarks bar
Include Bonjour
Collections:
Include Bonjour
2.
Bookmark
About Bonjour
AXIS P3301 - 00408C9FAB69
HNV3H22D1NSH1-0007D8101732
IP_Camera@00:0F:0D:00:20:25
ns4600-651171 : Firefly Media Server
ns4600-651171 : SmartStor NS4600
TCAM-7x00(432)_001C63AE0038
Zavio-001BFE03B8F3
4.

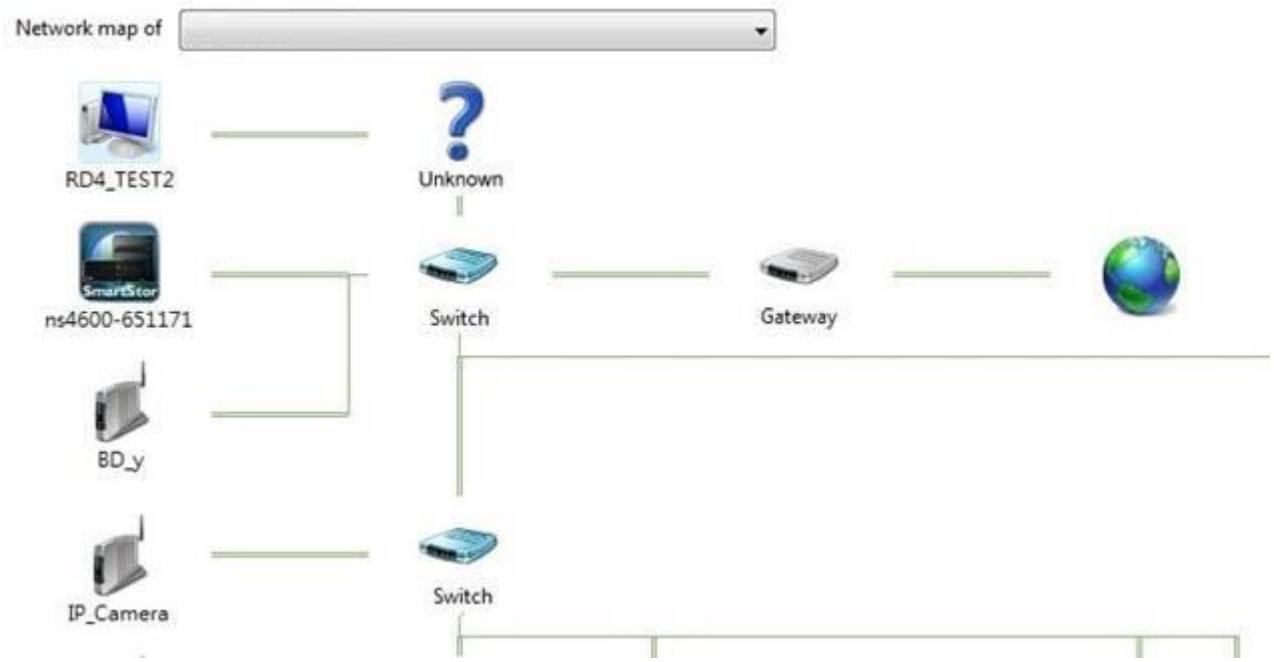
i. LLTD



If your PC supports LLTD, enables this function then you can check the connection status, properties, and device position (like IP address) of this IP Camera in the network map.

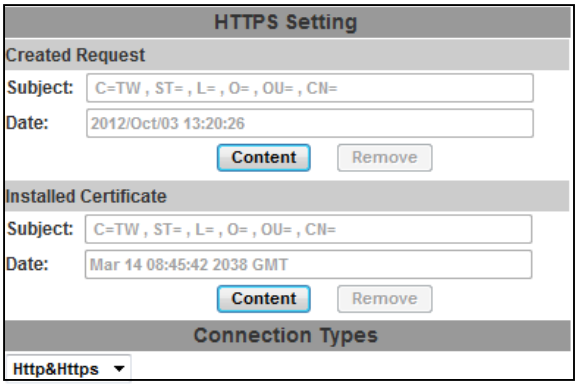
In the computer running Windows Vista or Windows 7, you can find LLTD through the path:

Call out the Control Panel → Network and Internet → Network and Sharing Center → Click "See full map"

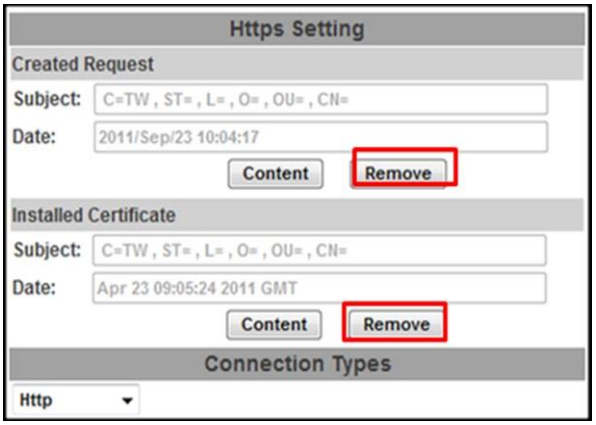


2. Advanced

a. Https (Hypertext Transfer Protocol Secure): Https can help protect streaming data transmission over the internal on the higher security level.



Https setting: Before setting new request, please remove old secure identification at Http connection type.

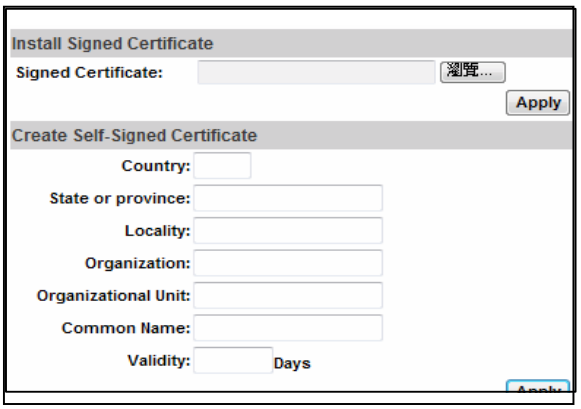


(i) Created request: remove secured identification in Created request mode. There is a warning message showing. Please set “Yes” to remove secure identification.

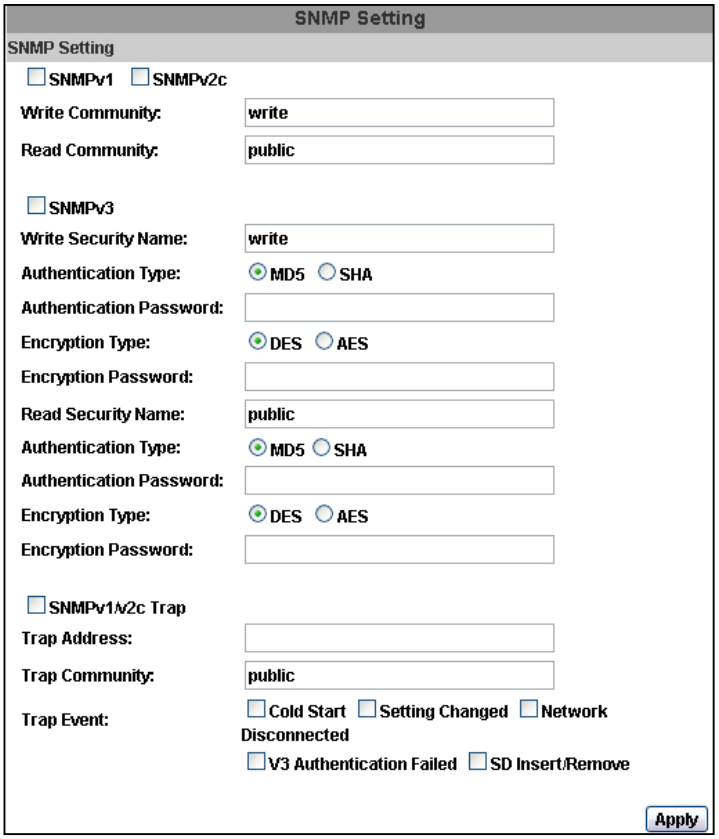
(ii) Setting the secure identification and apply it.

iii) Installed Certificate: remove Certificate in .Installed Certificate mode. There will be a warning message to check again.

(iv) There are two ways to set Certificate - Install Signed Certificate and Create Self-Signed Certificate.



b. SNMP (Simple Network Management Protocol)



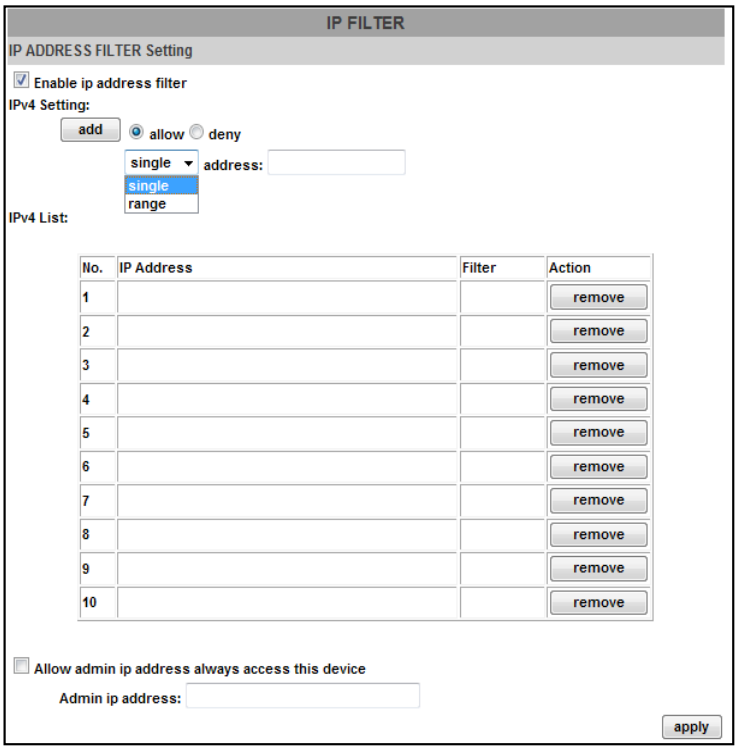
(i) Enable SNMPv1 or SNMPv2 and write the name of Write Community and Read Community.

(ii) Enable SNMPv3, please set Security Name, Authentication Type, Authentication Password, Encryption Type, encryption Password of Write mode and Read mode.

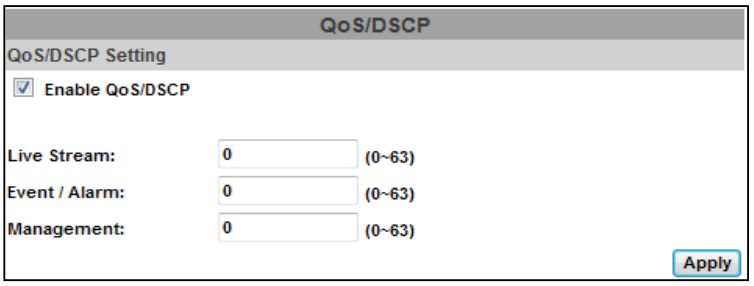
(iii) Enable SNMPv1/SNMPv2 Trap can detect the Trap server.

Please set what event need to detect.

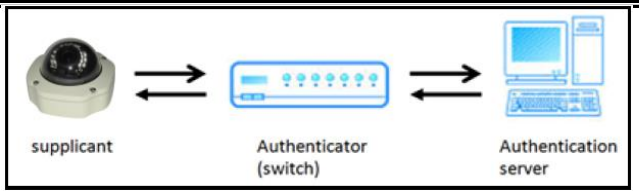
c. Access List: ”Enable IP address filter” can set IP address which can allow or deny to this camera. There are two options, single and range, for user to set the IP address.



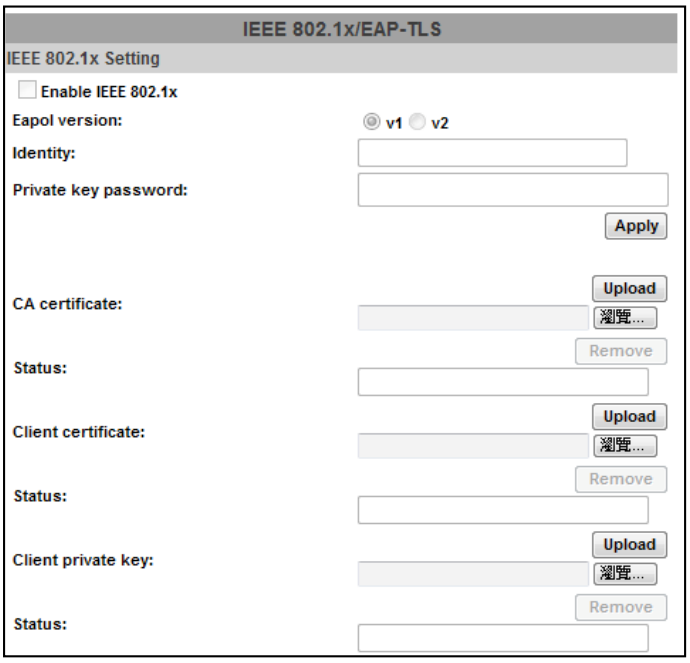
d. QoS (Quality of Server) / DSCP (Differentiated Services Code-point): DSCP specifies a simple mechanism for classifying and managing network traffic and provides QoS on IP networks. DSCP is a 6-bit in the IP header for packet classification purpose. Please define the reserve for Live Stream, Event / Alarm and Management.



e. IEEE 802.1x: IEEE 802.1x is an IEEE standard for port-based Network Access Control. It provides an authentication mechanism to device wishing to attach to a LAN or WLAN. The EAPOL supports service identification and optional point-to-point encryption over local LAN segment.

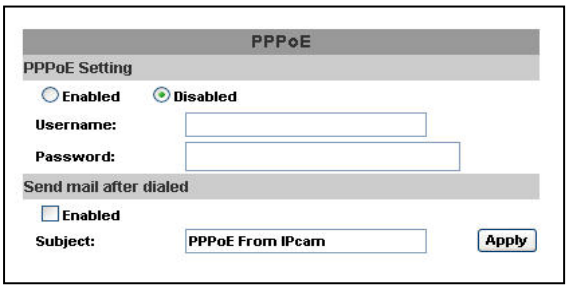


Please check what version of the authenticator and authentication server support. This camera supports EAP-TLS method. Please enter ID, password issued by the CA, then upload related certificates.

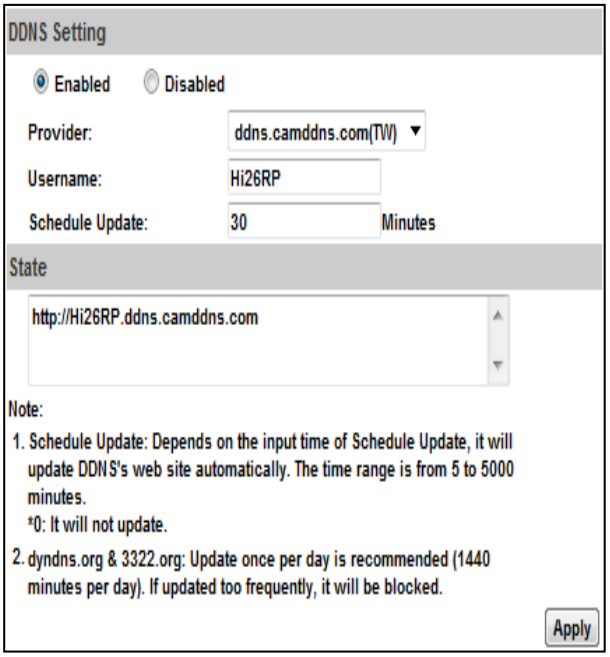


3. PPPoE & DDNS

a. PPPoE: Select “Enabled” to use PPPoE. Key-in Username and password for the ADSL connection. Send mail after dialed: When connect to the internet, it will send a mail to a specific mail account. For the mail setting, please refer to “Mail and FTP” settings.



b. DDNS:


DDNS Setting
Enabled
Disabled
Provider:
ddns.camddns.com(TW)
Username:
Hi26RP
Schedule Update:
30
Minutes
State
http://Hi26RP.ddns.camddns.com
Note:
1. Schedule Update: Depends on the input time of Schedule Update, it will update DDNS's web site automatically. The time range is from 5 to 5000 minutes.
*0: It will not update.
2. dyndns.org & 3322.org: Update once per day is recommended (1440 minutes per day). If updated too frequently, it will be blocked.
Apply

It supports DDNS (Dynamic DNS) service.

(i) Enable this service

(ii) Key-in the DynDNS user name.

(iii) Set up the IP Schedule update refreshing rate.

(iv) Click “Apply”

(v) If setting up IP schedule update too frequently, the IP may be blocked. In general, schedule update every day (1440 minutes) is recommended

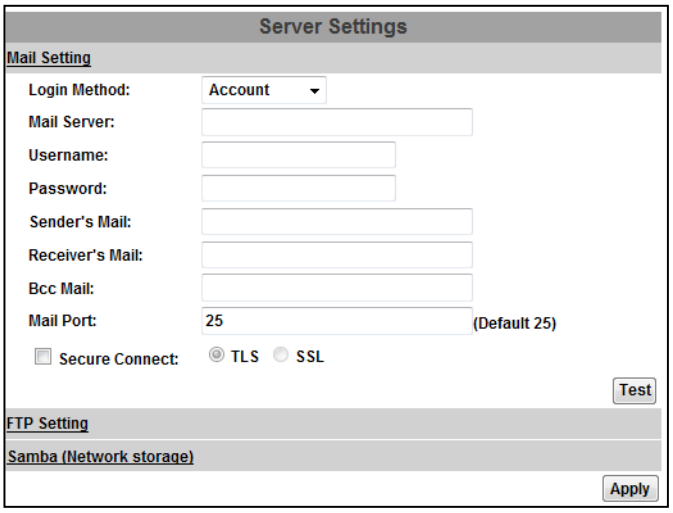
(vi) DDNS Status

- Updating: Information update
- Idle: Stop service
- DDNS registration successful, can now log by http://<username>.ddns.camddns.com: Register successfully.
- Update Failed, the name is already registered: The user name has already been used. Please change it.
- Update Failed, please check your internet connection: Network connection failed.
- Update Failed, please check the account information you provide: The server, user name, and password may be wrong.

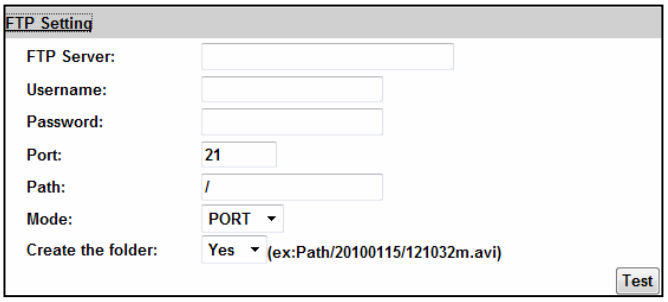
4. Server setting

There are three choices of server types available: Email, FTP and SAMBA. Select the item to display the detailed configuration options. You can configure either one of them, or all of them.

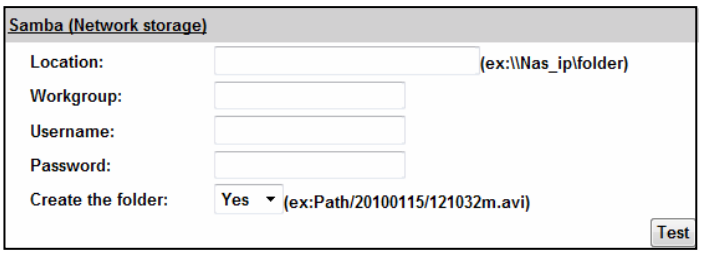
a. Mail Setting: To send out the video via mail of ftp, please set up the configuration first.



b. FTP: To send out the video via mail of ftp, please set up the configuration first.

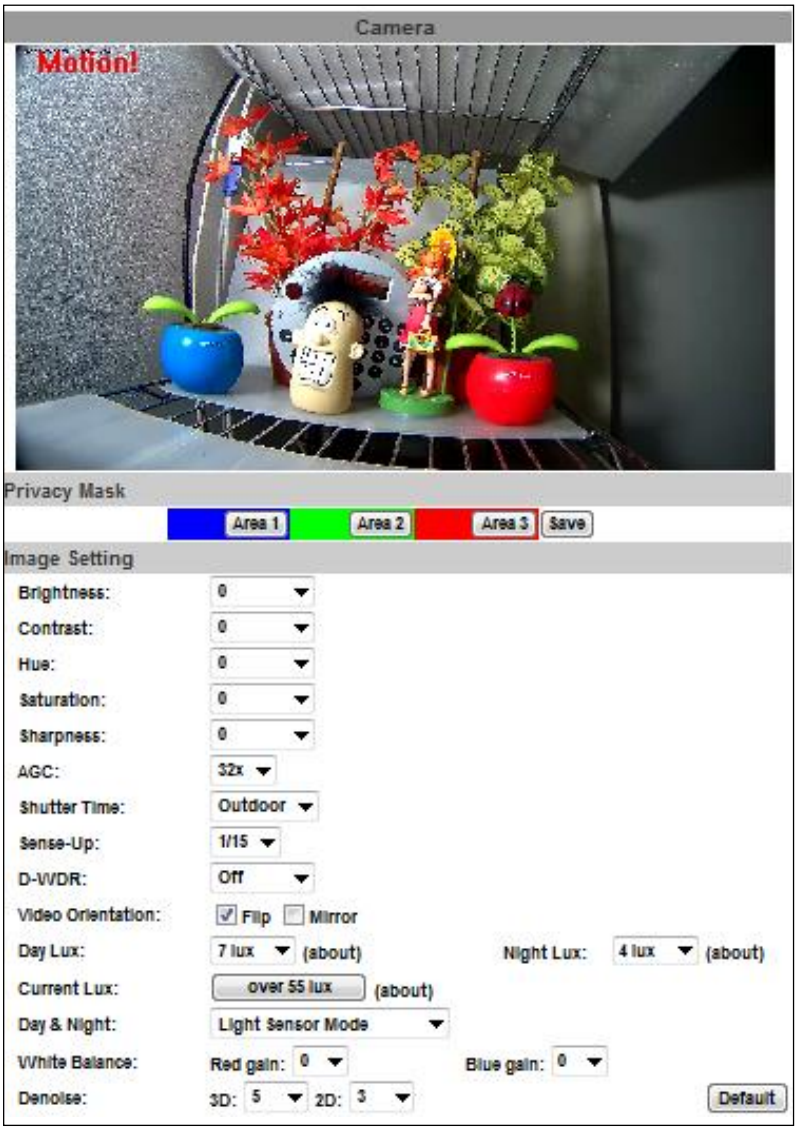


c. Samba: Select this option to send the media files via a network neighborhood when an event is triggered



C. A/V Setting

1. Image Setting



For the security purpose, there are three areas can be setup for privacy mask. Click Area button first and pull an area on the above image. Finally, click save button to reserve the setting.

Please refer to the details below for Image setting:

a. Brightness, Contrast, Hue, Saturation, Sharpness can be adjusted here.

b. AGC: The sensitivity of camera can adjust with the environmental light, in order to avoid the images too flashing or gloomy.

c. Shutter Time: You can use "Outdoor" or "Indoor" option, or fix it from 1/30 to 1/1000.

d. Sense-Up: Increase the sensitivity of camera to get brighter image at night.

e. D-WDR: Enable this function to reduce the contrast of background with foreground (ex. people).

f. Video Orientation: Flip, mirror, or rotate the image as your requirement.

g. Day & Night: The camera can detect the light level of environment. If selecting "Light Sensor Mode", the image will be turned to black and white at night in order to keep clear. To set light sensor mode, appoint a lux standard of switching D/N here. Current lux value is provided for reference. Under "Times Mode" according to given time. You can also control it by choosing "Color" or "B/W".

h. De-noise: Adjust to reduce the noise, 2D (De-interlace + De-noise); 3D (De-interlace + De-noise + De-comb filter)

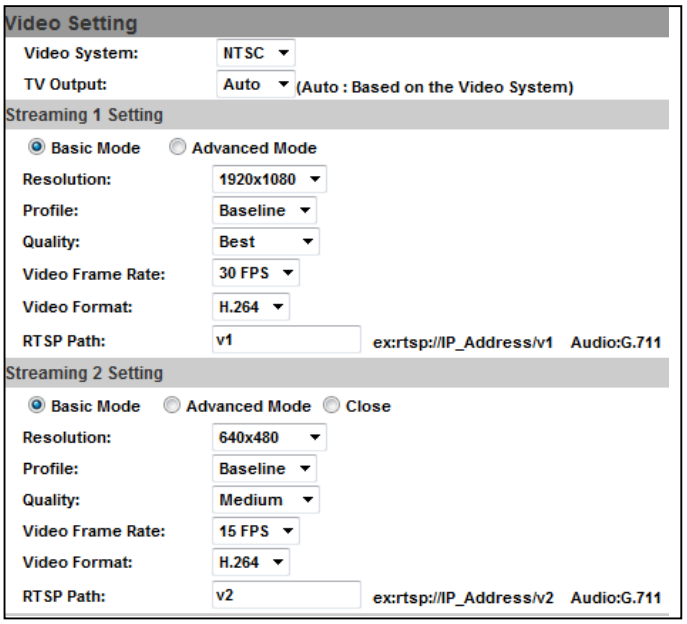
2. Video Setting

User may select 2 streaming output simultaneously:

Streaming 1 Setting: Basic mode and Advanced mode

Streaming 2 Setting: Basic mode, Advanced mode, and 3GPP mode

a. Basic Mode of Streaming 1 and Streaming 2:



(i) Resolution:

There are 5 resolutions can be chosen:

1920x1080, 1280x720, 640x480, 320x240, 176x144

(ii) Quality:

There are 5 levels to choose:

Best/ High/ Standard/ Medium/ Low

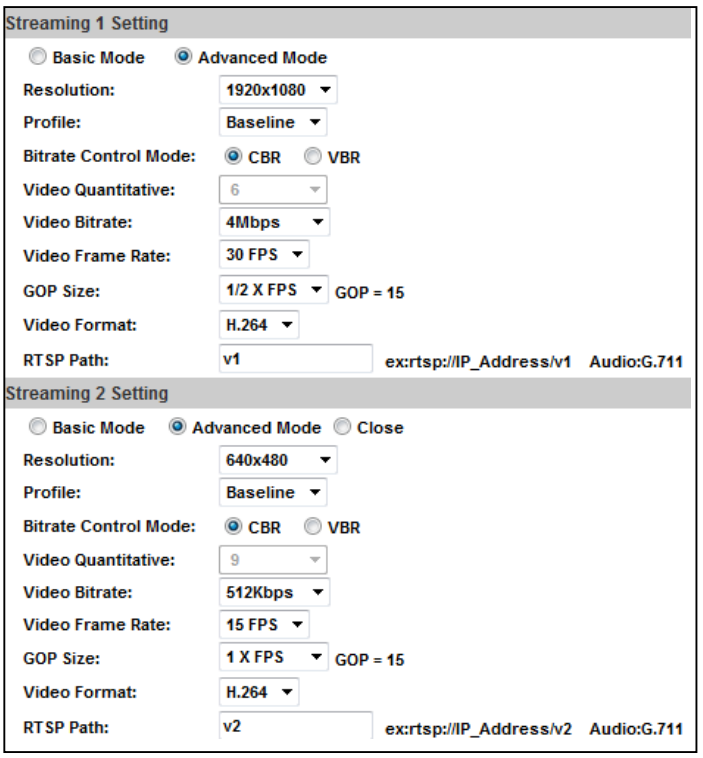
The higher the quality is, the bigger the file size is. It might affect internet transmitting speed if the file gets too large.

(iii) Video Frame Rate: The video refreshing rate per second. In Streaming 1 you can choose up to 30 FPS, while in Streaming 2 only up to 15 fps.

(iv) Video Format: H.264, MPEG4, or M-JPEG

(v) RTSP Path: Set the RTSP output connecting route

b. Advanced Mode of Streaming 1 and Streaming 2:



(i) Resolution

There are 5 resolutions can be chosen:
1920x1080, 1280x720, ,640x480, 320x240, 176x144

(ii) Bitrate Control Mode

There are CBR (Constant Bit Rate) and VBR (Variable Bit Rate) to be chosen.

(iii) Video Quantitative

The quality adjustment of VBR. You can choose 1~10 compression rate

(iv) Video Bit rate

The quality adjustment of CBR. You can choose 32kbps~8Mkbps. The higher the value is, the higher the image quality is.

(v) Video Frame Rate

The video refreshing rate per second. In Streaming 1 you can choose up to 30 FPS, while in Streaming 2 only up to 15 FPS.

(vi) GOP Size

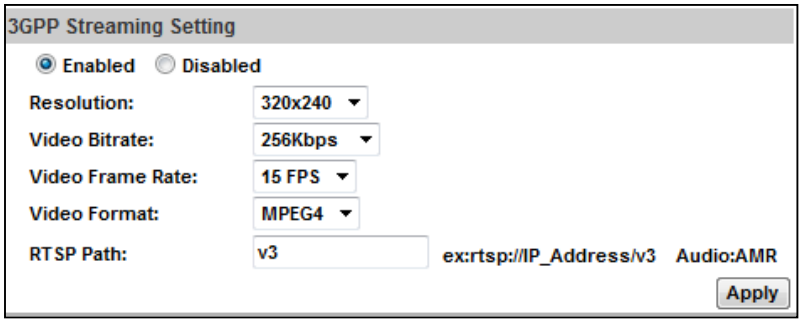
It means “Group of Pictures”. The higher the GOP is, the better the quality is.

(vii) Video Format: H.264, MPEG4, or M-JPEG

(viii) RTSP Path: RTSP output connecting route

In Streaming 2, the option under Advanced Mode has no difference with under Basic Mode.

c. 3GPP Streaming mode:



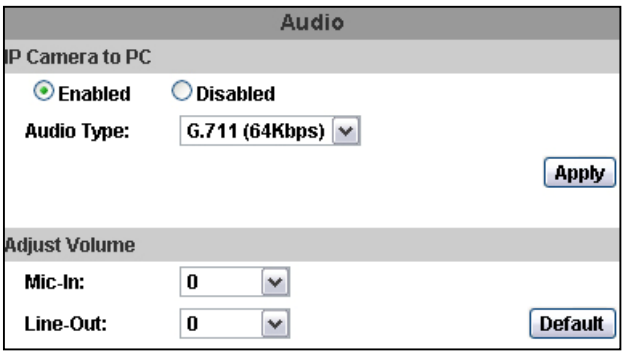
33GPP mode has 640x480, 320x240, 176x144 resolutions, 3~15FPS frame rate levels, H.264 / MPEG4 format

(i) Enable or Disable 3GPP Streaming

(ii)3GPP Path: 3GPP output connecting route

3. Audio:

IP Camera supports 2-way audio. User can send audio from IP Camera Built-in mic to remote PC; User can also send audio from remote PC mic to IP Camera's external speaker.

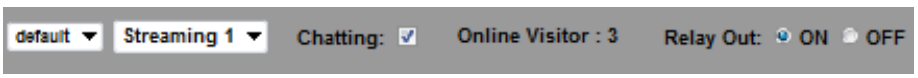


Note: The Audio may not be smooth if the SD card recording is functioned simultaneously.

a. Audio from IP camera built-in mic to local PC: select "Enable" to start this function.

b. Adjust Volume of audio.

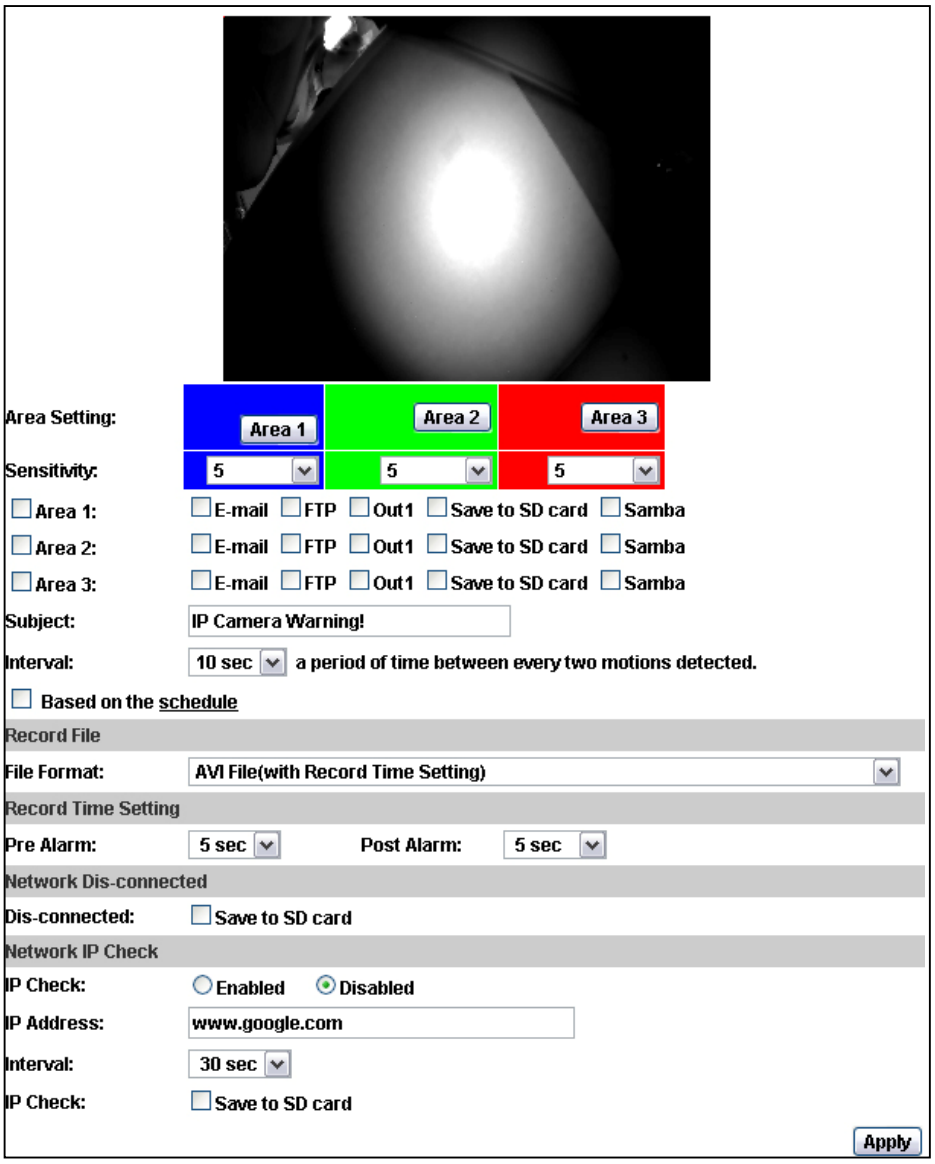
c. Check "chatting" in the browsing page, then your voice can be propagated from PC to camera.



D. Event List

IP Camera provides multiple event settings.

1. Event Setting



a. Motion Detection

IP CAMERA allows 3 areas motion detection. When motion is triggered, it can send video to some specific mail addresses, transmit the video to remote ftp server, and save video to local SD card. To set up the motion area, click “Area Setting”. Using mouse to drag and draw the area, the same operation for area 2 and 3.

b. Record File: Choose AVI or JEPG file

c. Record Time Setting

Pre Alarm and Post Alarm setup for video start and end time when motion is detected, I/O, or other devices got triggered

d. Network Dis-connected

When the network is down, it will save the video to local SD card.

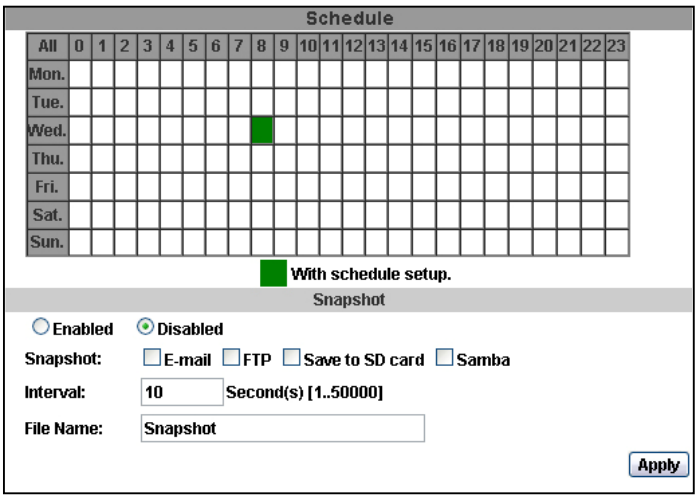
This function is only enabled under wire connection.

e. Network IP check:

Whenever the connection is down, it records the video to SD card. Make sure the video recording is continuous. To use this function, key in the IP address of the PC which has recording software installed. Enable the function of “Save to SD card”, then click “Apply”.

The interval of two video files recorded on SD card is fixed with 30 seconds.

2. Schedule

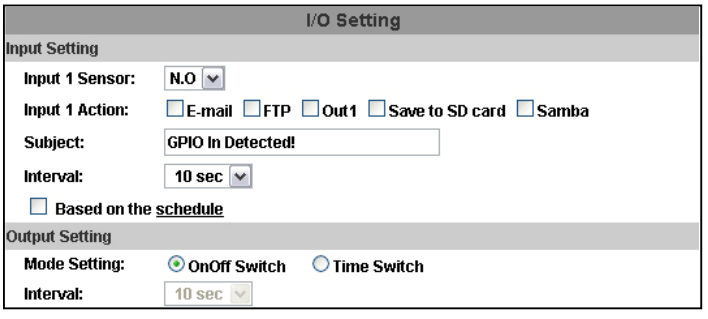


a. Schedule: After complete the schedule setup, the camera data will be recorded according to the schedule setup.

b. Snapshot: After enabling the snapshot function, user can select the storage position of snapshot file, the interval time of snapshot and the reserved file name of snapshot.

c. Interval: The interval between two snapshots.

3. I/O Setting



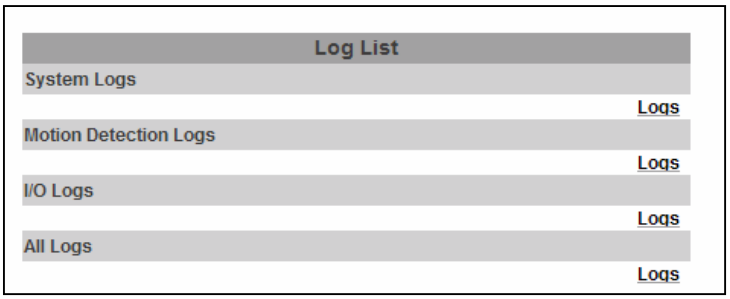
a. Input Setting:

IP Camera supports input and output. When the input condition is triggered, it can send the video to some specific mail addresses, transmit the video to remote FTP server, trigger the relay, save video to local SD card or to SAMBA.

b. Output Setting:

"On/Off Switch" means the camera executes the action when triggered. "Time Switch" means the camera executes the action according to the interval you choose after triggered.

4. Log List

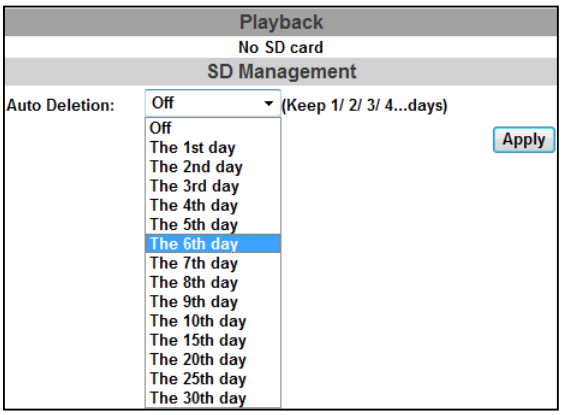


Sort by System Logs, Motion Detection Logs and I/O Logs. In addition, System Logs and I/O Logs won't lose data due to power failure

5. Micro SD card

Choose "The 1st day" means the recoding file will be kept one day.

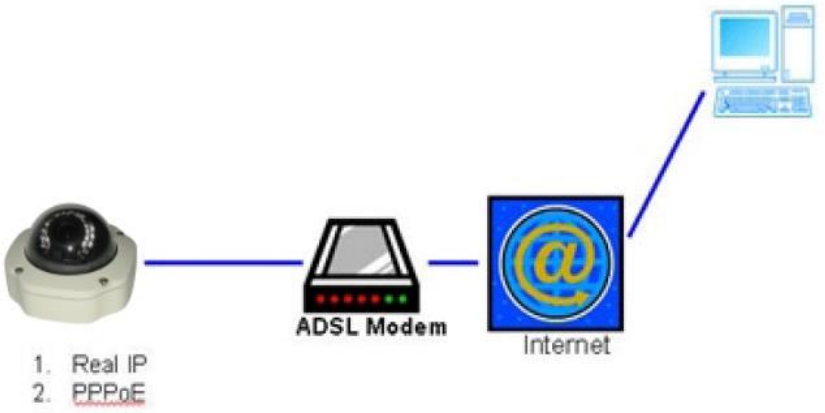
Example: It is five o'clock now. Choose "The 1st day". The files will be kept from five o'clock yesterday to five o'clock today.



Note：The use of the SD card will affect the operation of the IP Camera slightly, such as affecting the frame rate of the video.

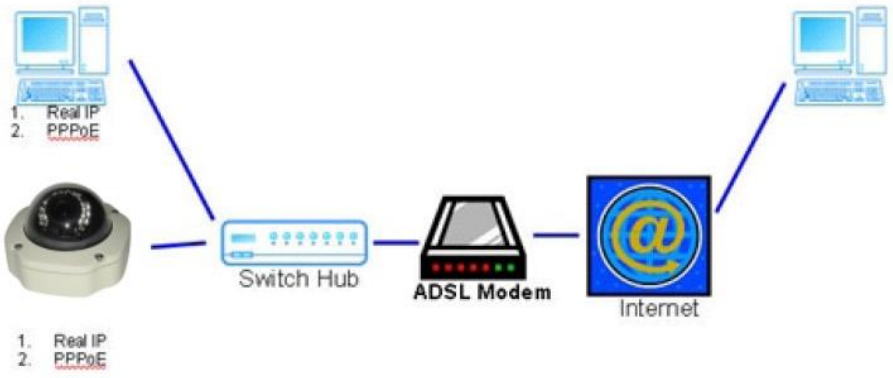
VI. Network Configuration

- Configuration 1:



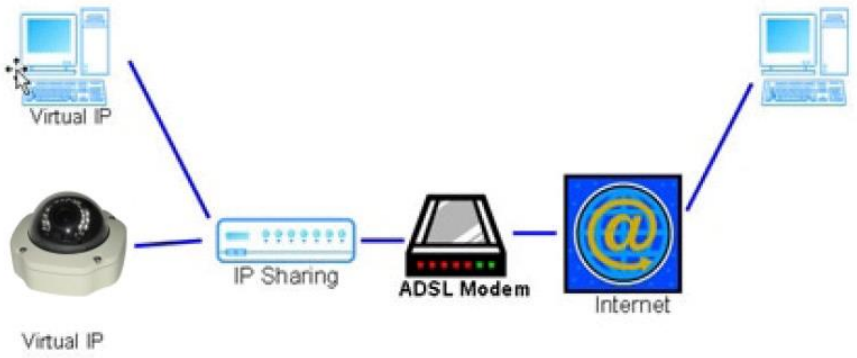
a. Internet Access: ADSL or Cable Modem
b. IP address: One real IP or one dynamic IP
c. Only IP Camera connects to the internet
d. For fixed real IP, set up the IP into IP Camera. For dynamic IP, start PPPoE.

- Configuration 2:



a. Internet Access: ADSL or Cable Modem
b. IP address: More than one real IP or one dynamic IP
c. IP Camera and PC connect to the internet
d. Device needed: Switch Hub
e. For fixed real IP, set up the IP into IP Camera and PC. For dynamic IP, start PPPoE.

- Configuration 3:



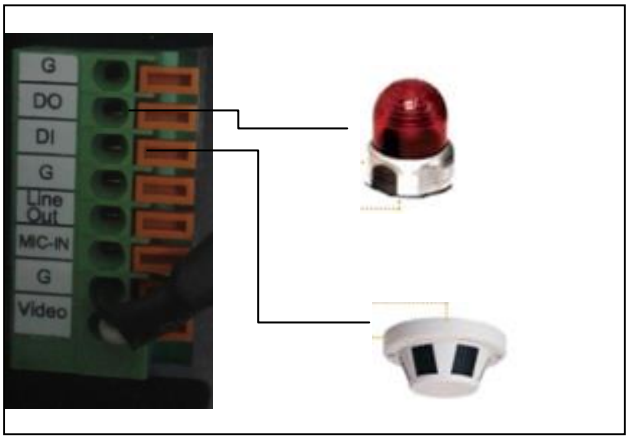
a. Internet Access: ADSL or Cable Modem
b. IP address: one real IP or one dynamic IP
c. IP Camera and PC connect to the internet
d. Device needed: IP sharing
e. Use virtual IP, set up port forwarding in IP sharing.

VII. I/O Configuration

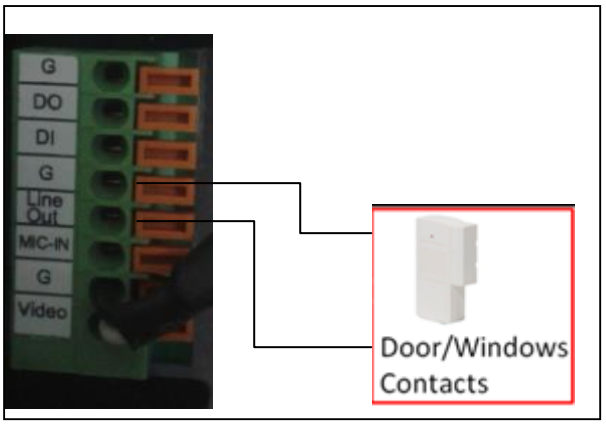
- I/O Connection

  Use the terminal block in the camera as below:

a. Please connect the DI & DO pin (depend on the device) to the external device.

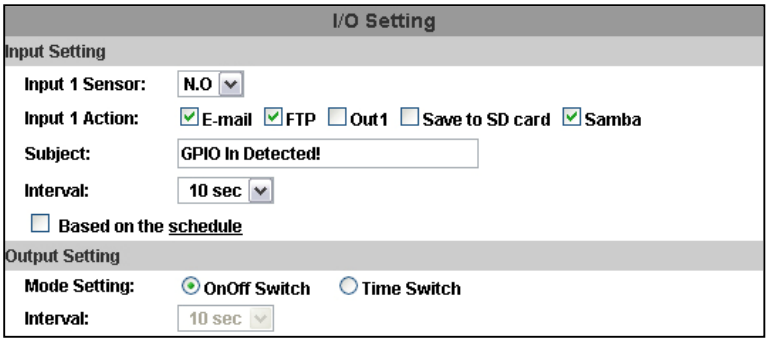


b. Please connect the GND & Line Out pin to the external Trigger Device.



- I/O Setup

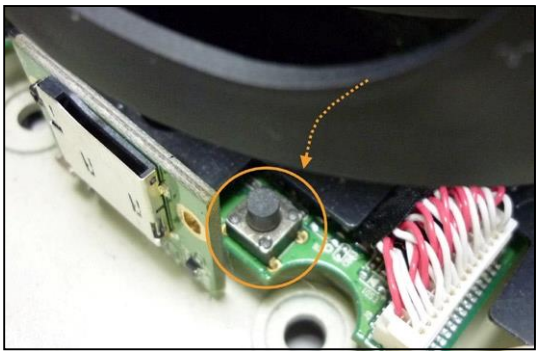
a. Click I/O Setting from the system setup page via IE, and check “Out1” to enable I/O signal.


I/O Setting
Input Setting
Input 1 Sensor: N.O
Input 1 Action: E-mail FTP Out1 Save to SD card Samba
Subject: GPIO In Detected!
Interval: 10 sec
Based on the schedule
Output Setting
Mode Setting: OnOff Switch Time Switch
Interval: 10 sec

b. Click ON/OFF from the setup main page via IE to control relay out signal.

VII. Factory Default

- To recover the default IP address and password, please follow the following steps.
- Remove the power, Internet, and the dome cover. Press and hold the button as the picture below.



- Connect power to the camera, and do not release the button during the system booting.
- It will take around 30 seconds to boot the camera.
- Release the button when camera finishes proceed.
- Re-login the camera using the default IP (http://192.168.1.200), and user name (admin), password (admin).

VIII. Package contents

- IP Camera Network Camera
- Adaptor
- CD (Including User manual and IP installation tool)

IX. Appendix I

(I) The following is the Micro SD Card recommended:

Transcend	SDHC class4 16GB SDHC class4 32GB SDHC class4 16GB SDHC class4 32GB SDHC class6 4GB SDHC class6 8GB SDHC class6 16GB SDHC class6 4GB SDHC class6 8GB SDHC class6 16GB SDHC class10 4GB SDHC class10 8GB SDHC class10 16GB
SanDisk	SDHC class4 4GB SDHC class4 8GB SDHC class4 16GB SDHC class4 32GB

X. Appendix II

(II) 2M 1080P IP Cameras – Video Setting – Streaming 1 & Streaming 2 setting table, NVR@ Normal Mode

Co-working with NVR, the listed video setting in Streaming 1 & 2 appendix table:

ITEM	Streaming 1 Setting	Streaming 2 Setting	Test Result
Resolution	1024x1080	1920x1080	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	5	
Video Bit rate	10Mbps	1Mbps	
Resolution	1280x720	1920x1080	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	5	
Video Bit rate	10Mbps	1Mbps	
Resolution	640x480	1920x1080	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	15	30	
Video Bit rate	10Mbps	1Mbps	
Resolution	320x240	1920x1080	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	30	
Video Bit rate	10Mbps	1Mbps	
Resolution	176x144	1920x1080	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	30	
Video Bit rate	10Mbps	1Mbps	
Resolution	1920x1080	1080x720	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	5	
Video Bit rate	10Mbps	1Mbps	
Resolution	1920x1080	640x480	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	15	
Video Bit rate	10Mbps	1Mbps	

Resolution	1920x1080	320x240	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	30	
Video Bit rate	10Mbps	1Mbps	
Resolution	1920x1080	176x144	Pass
Profile	Baseline	Baseline	
Bit rate Control Mode	CBR	CBR	
Video Frame Rate(fps)	30	30	
Video Bit rate	10Mbps	1Mbps	